DCR-DVD200/DVD200E/ DVD300

RMT-820

SERVICE MANUAL

Ver 1.0 2003. 08

Revision History

How to use Acrobat Reader

Photo: DCR-DVD300

US Model
DCR-DVD200/DVD300
Canadian Model
Korea Model
DCR-DVD200
AEP Model
UK Model
East European Model
Hong Kong Model
Australian Model
DCR-DVD200E
E Model
DCR-DVD200/DVD200E

Link

SPECIFICATIONS	BLOCK DIAGRAMS	PRINTED WIRING BOARDS
SERVICE NOTE	FRAME SCHEMATIC DIAGRAMS	REPAIR PARTS LIST
DISASSEMBLY	SCHEMATIC DIAGRAMS	

• Reference No. search on printed wiring boards is available.

On the MD-097, SS-174T and VC-310 board

This service manual provides the information that is premised the circuit board replacement service and not intended repair inside the MD-097, SS-174T and VC-310 board.

Therefore, schematic diagram, printed wiring board, waveforms, mounted parts location and electrical parts list of the MD-097, SS-174T and VC-310 board are not shown.

The following pages are not shown.

Disassembly ..... Pages 2-30 to 2-32
Schematic diagram ..... Pages 4-27- to 4-78
Printed wiring board ..... Pages 4-97 to 4-106
Waveforms ..... Pages 4-109 to 4-110
Mounted parts location ..... Pages 4-113 to 4-116
Exploded views ..... Pages 5-13 to 5-14
Electrical parts list ..... Pages 5-19 to 5-34

DVD R/RW Digital Video Camera Recorder

SONY®

COVER

Self Diagnosis Supported model

HANDYCAM

USB

InfoLITHIUM M SERIES

SPECIFICATIONS

Video camera recorder

System

Video recording format
DVD-Video
DVD-VR (DVD-RW only)
Audio recording system
2ch Dolby* Digital
Video signal
DCR-DVD200/DVD300:
NTSC color, EIA standards
DCR-DVD200E:
PAL colour, CCIR standards
Usable discs
8 cm DVD-R and DVD-RW
Video compression format
MPEG2/JPEG (Still images)
Recording/playback time
HQ: approx. 20 minutes
SP: approx. 30 minutes
LP: approx. 60 minutes
Viewfinder
Electric viewfinder (color)
Image device
DCR-DVD200/DVD200E:
3.8 mm (1/4.7 type) CCD (Charge Coupled Device)
Number of Pixels
Gross: Approx. 1 070 000 pixels
Effective (for still images):
Approx. 1 000 000 pixels
Effective (for movies):
Approx. 690 000 pixels

DCR-DVD300:
3.8 mm (1/4.7 type) CCD (Charge Coupled Device)
Number of Pixels
Gross: Approx. 1 070 000
Effective (for still images):
Approx. 1 000 000 pixels
Effective (for movies):
Approx. 690 000 pixels

* Manufactured under license from Dolby Laboratories.
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Lens
Carl Zeiss
Combined power zoom lens
Filter diameter:
30 mm (1 3/16 in.)
10×(Optical), 120× (Digital)
F = 1.8 – 2
Focal length
3.7 – 37 mm (5/32 – 1 1/2 in.)
When converted to a 35 mm still camera
For movies:
50 – 500 mm (2 – 19 3/4 in.)
For still images:
42 – 420 mm (1 11/16 – 16 5/8 in.)
Color temperature
Auto, HOLD (Hold), Indoor (3 200 K), Outdoor (5 800 K)
Minimum illumination
7 lx (lux) (F 1.8)
0 lx (lux) (in the NightShot mode)*
* Objects unable to be seen due to the dark can be shot with infrared lighting.

Input/Output connectors

S video input/output
4-pin mini DIN
Luminance signal: 1 Vp-p, 75Ω (ohms), unbalanced
Chroinance signal:
DCR-DVD200/DVD300: 0.286 Vp-p,
DCR-DVD200E: 0.3 Vp-p,
75 Ω (ohms), unbalanced
Audio/Video input/output
AV MINI JACK, 1 Vp-p, 75 Ω (ohms), unbalanced, sync negative 327 mV, (at output impedance of more than 47 kΩ (kilohms))
Output impedance of less than 2.2 kΩ (kilohms)/Stereo minijack (ø 3.5mm)
Input impedance of more than 47 kΩ (kilohms)
USB jack
mini-B
Control jack
Stereo mini-minijack (ø 2.5 mm)
MIC jack
Stereo minijack (ø 3.5 mm)

LCD screen

Picture
DCR-DVD200/DVD200E:
6.2 cm (2.5 type)
DCR-DVD300:
8.8 cm (3.5 type)
Total number of pixels
123 200 (560 × 220)

General

Power requirements
7.2 V (battery pack)
8.4 V (AC adaptor)
Average power consumption (when using the battery pack)
During camera recording using LCD
DCR-DVD200/DVD200E: 7.0 W
DCR-DVD300: 7.2 W
Viewfinder
6.0 W
Operating temperature
0°C to 40°C (32°F to 104°F)
Storage temperature
–20°C to + 60°C
(–4°F to + 140°F)
Dimensions (Approx.)
DCR-DVD200/DVD200E:
66 × 94 × 142 mm
(2 5/8 × 3 3/4 × 5 5/8 in.)
(w/h/d)
DCR-DVD300:
79 × 94 × 142 mm
(3 1/8 × 3 3/4 × 5 5/8 in.)
(w/h/d)
Mass (approx.)
DCR-DVD200/DVD200E
650 g (1 lb 6 oz)
main unit only
740 g (1 lb 10 oz)
including the battery pack, disc and lens cap
DCR-DVD300
710 g (1 lb 9 oz)
main unit only
800 g (1 lb 12 oz)
including the battery pack, disc and lens cap
Supplied accessories
See page 5-35.

AC adaptor AC-L15A

Power requirements
100 – 240 V AC, 50/60 Hz
Current consumption
0.35 – 0.18 A
Power consumption
18 W
Output voltage
DC OUT: 8.4 V, 1.5 A in the operating mode
Operating temperature
0°C to 40°C (32°F to 104°F)
Storage temperature
–20°C to + 60°C (–4°F to + 140°F)
Dimensions (approx.)
56 × 31 × 100 mm
(2 1/4 × 1 1/4 × 4 in.) (w/h/d)
excluding projecting parts
Mass (approx.)
190 g (6.7 oz)
excluding power cord

Rechargeable battery pack NP-FM50

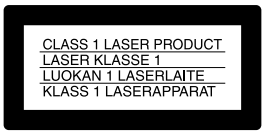
Maximum output voltage
DC 8.4 V
Output voltage
DC 7.2 V
Capacity
8.5 Wh (1 180 mAh)
Dimensions (approx.)
38.2 × 20.5 × 55.6 mm
(1 9/16 × 13/16 × 2 1/4 in.)
(w/h/d)
Mass (approx.)
76 g (2.7 oz)
Operating temperature
0°C to 40°C (32°F to 104°F)
Type
Lithium ion

Design and specifications are subject to change without notice.

Table for difference of function

Model	DCR-DVD200	DCR-DVD200E	DCR-DVD300	Remark
Destination	US/CND/E/KR	AEP/UK/EE/E/HK/AUS	US	
Color System	NTSC	PAL	NTSC	NTSC: X1602 is 66MHz PAL: X1602 is 54MHz
LCD size	2.5 INCH		3.5 INCH	

- Abbreviation
  CND : Canadian model
  EE : East European model
  HK : Hong Kong model
  AUS : Australian model
  KR : Korea model



WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30 cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

CAUTION:
The use of optical instrument with this product will increase eye hazard.

CAUTION
Use of controls or adjustments or performance procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION :
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
   - Keep the temperature of the soldering iron around 270˚C during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

Unleaded solder

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

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COVER

SECTION 1
SERVICE NOTE

1-1. SERVICE NOTE

1. POWER SUPPLY DURING REPAIRS

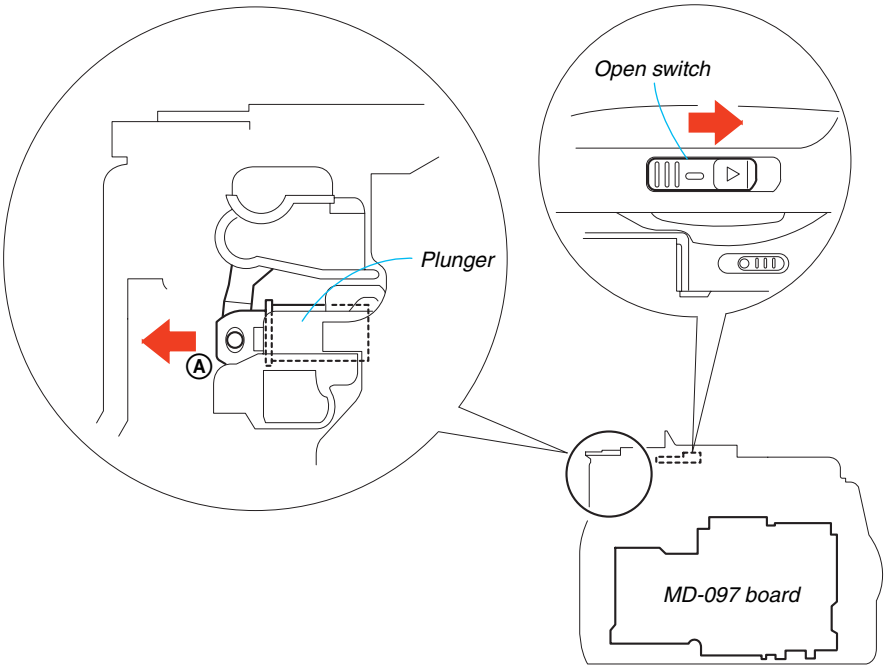
In this unit, about 10 seconds after power is supplied to the battery terminal using the regulated power supply (8.4V), the power is shut off so that the unit cannot operate.
This following two methods are available to prevent this. Take note of which to use during repairs.

Method 1.
Use the AC power adaptor (AC-L15, AC-VQ800 etc.).

Method 2.
Connect the servicing remote commander RM-95 (J-6082-053-B) to the LANC jack, and set the commander switch to the "ADJ" side.

2. TO TAKE OUT A CASSETTE WHEN NOT EJECT (FORCE EJECT)

① Refer to page 2-3 to remove the front panel assembly.
② Refer to page 2-4 to remove the cabinet (R) assembly.
③ Refer to page 2-16 to remove the battery panel section.
④ Refer to page 2-17 to remove the EVF block.
⑤ Remove the VC-310 board.
⑥ Refer to page 2-21 to remove the lens block and the accessory shoe.
⑦ While pushing the portion Ⓐ in the direction of the arrow, push the OPEN switch in the direction of the arrow and open the disc cover.



3. NOTES ON HANDLING THE OPTICAL PICK-UP

The laser diode may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

4. PRECAUTION FOR CHECKING EMISSION OF LASER DIODE

Laser light of the equipment is focused by the object lens in the optical pick-up so that the light focuses on the reflection surface of the disc. Therefore, be sure to keep your eyes more then 30 cm apart from the object lens when you check the emission of laser diode.

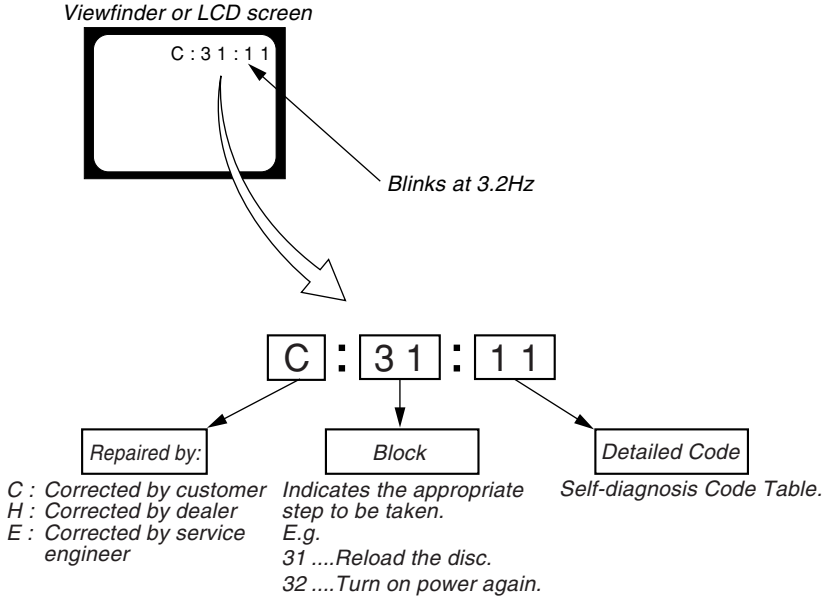
1-2. SELF-DIAGNOSIS FUNCTION

1. SELF-DIAGNOSIS FUNCTION

When problems occur while the unit is operating, the self-diagnosis function starts working, and displays on the viewfinder, or LCD screen what to do. This function consists of two display; self-diagnosis display and service mode display.
Details of the self-diagnosis functions are provided in the Instruction manual.

2. SELF-DIAGNOSIS DISPLAY

When problems occur while the unit is operating, the counter of the viewfinder or LCD screen consists of an alphabet and 4-digit number, which blinks at 3.2Hz. This 5-character display indicates the "repaired by:", "block" in which the problem occurred, and "detailed code" of the problem.



Note: The "self-diagnosis display" data will be kept even if the lithium battery (CK-127 board BT5201 of the cabinet (R) assembly) is removed.

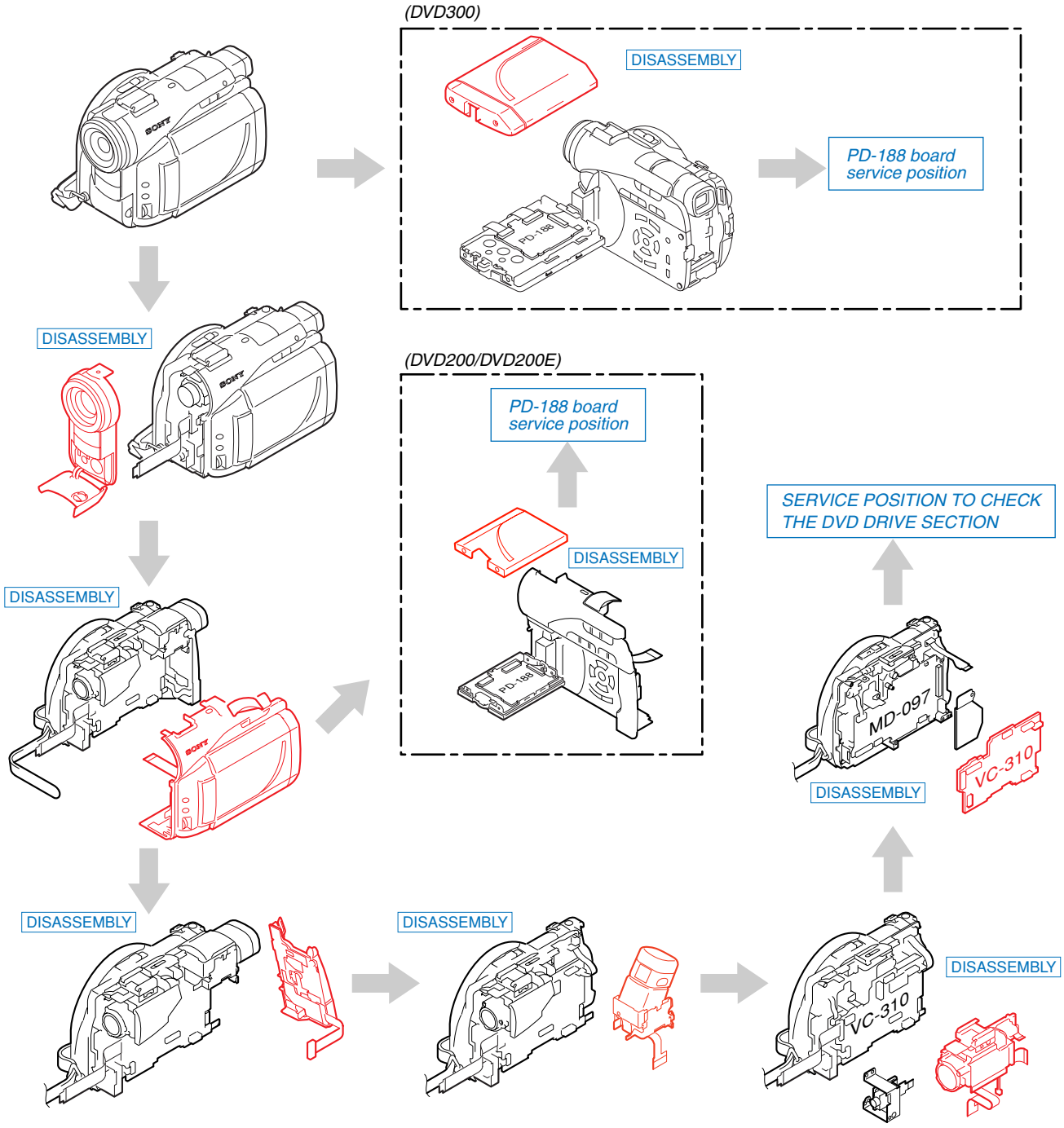
3. SELF-DIAGNOSIS CODE TABLE

Self-diagnosis Code				Symptom/State	Correction
Repaired by:	Block Function		Detailed Code		
C	0	4	0 0	Non-standard battery is used.	Use the InfoLITHIUM battery.
C	1	3	0 0	Faulty disc is used.	Use a compatible disc with the camcorder.
C	2	1	0 0	Condensation.	Remove the disc, and insert it again after one hour.
E	2	0	0 0	EEPROM data are rewritten.	Make EEPROM data correct value. (Note)
E	6	1	0 0	Difficult to adjust focus (Cannot initialize focus.)	Inspect the lens block focus MR sensor (Pin ⑲, ⑳ of CN1201 of VC-310 board) when focusing is performed when the control dial is rotated in the focus manual mode and inspect the focus motor drive circuit (IC1501 of VC-310 board) when the focusing is not performed.
E	6	1	1 0	Zoom operations fault (Cannot initialize zoom lens.)	Inspect the lens block zoom MR sensor (Pin ⑧, ⑩ of CN1501 of VC-310 board) when zooming is performed when the zoom switch is pressed and inspect the zoom motor drive circuit (IC1501 of VC-310 board) when the zooming is not performed.
E	6	2	0 0	Handshake correction function does not work well. (With pitch angular velocity sensor output stopped.)	Inspect angular velocity sensors (SE5501, 5502 of MA-420 board) peripheral circuits.
E	9	3	0 0	USB bridge IC fault	Inspect the USB bridge IC (MD-097 board IC4202) and EEPROM (MD-097 board IC4201)
E	9	4	0 1	Fault of writing to or erasing the flash memory	Inspect the flash memory (VC-310 board IC3401) (Note)

Note: Refer to "8. Record of Self-diagnosis check" of "6-3. SERVICE MODE", ADJ (987627351.pdf).

SECTION 2
DISASSEMBLY

The following flow chart shows the disassembly procedure.



PROCEDURE OF REMOVING THE VC-310 BOARD.
(SERVICE POSITION) TO CHECK THE DVD DRIVE SECTION)

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② 2-4. CABINET (R) SECTION ..... (page 2-4)
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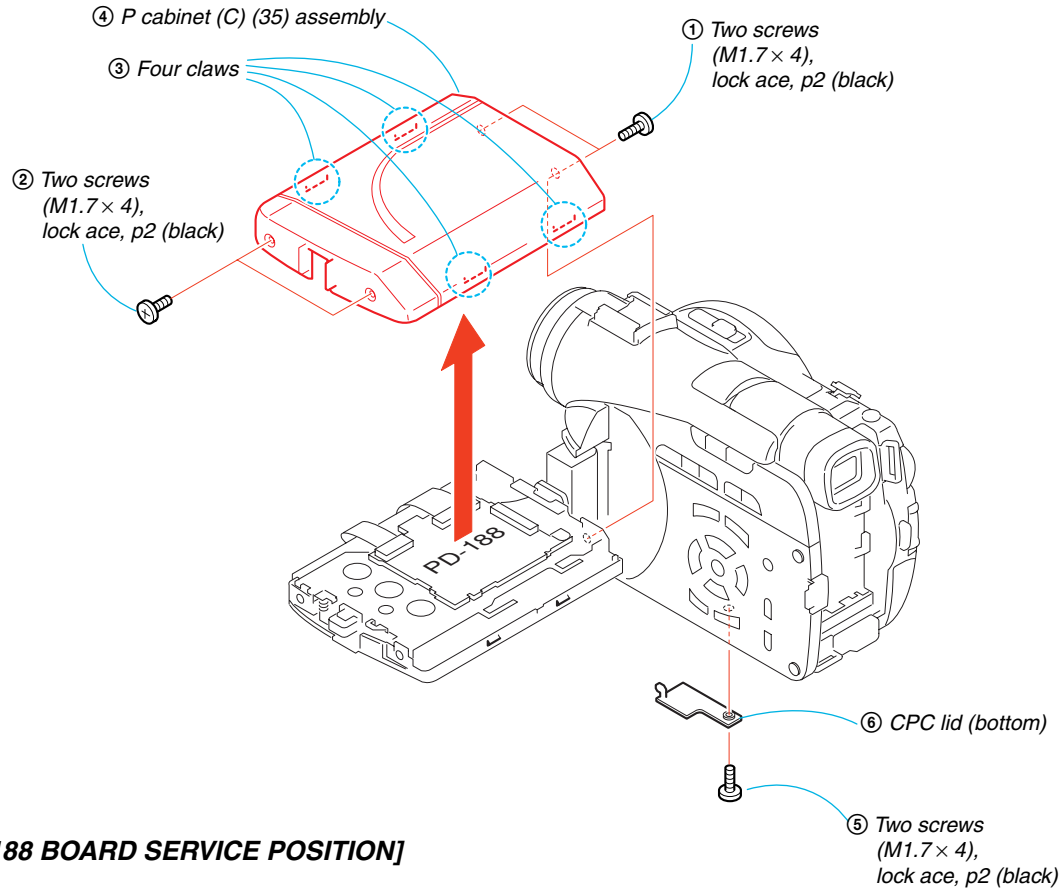
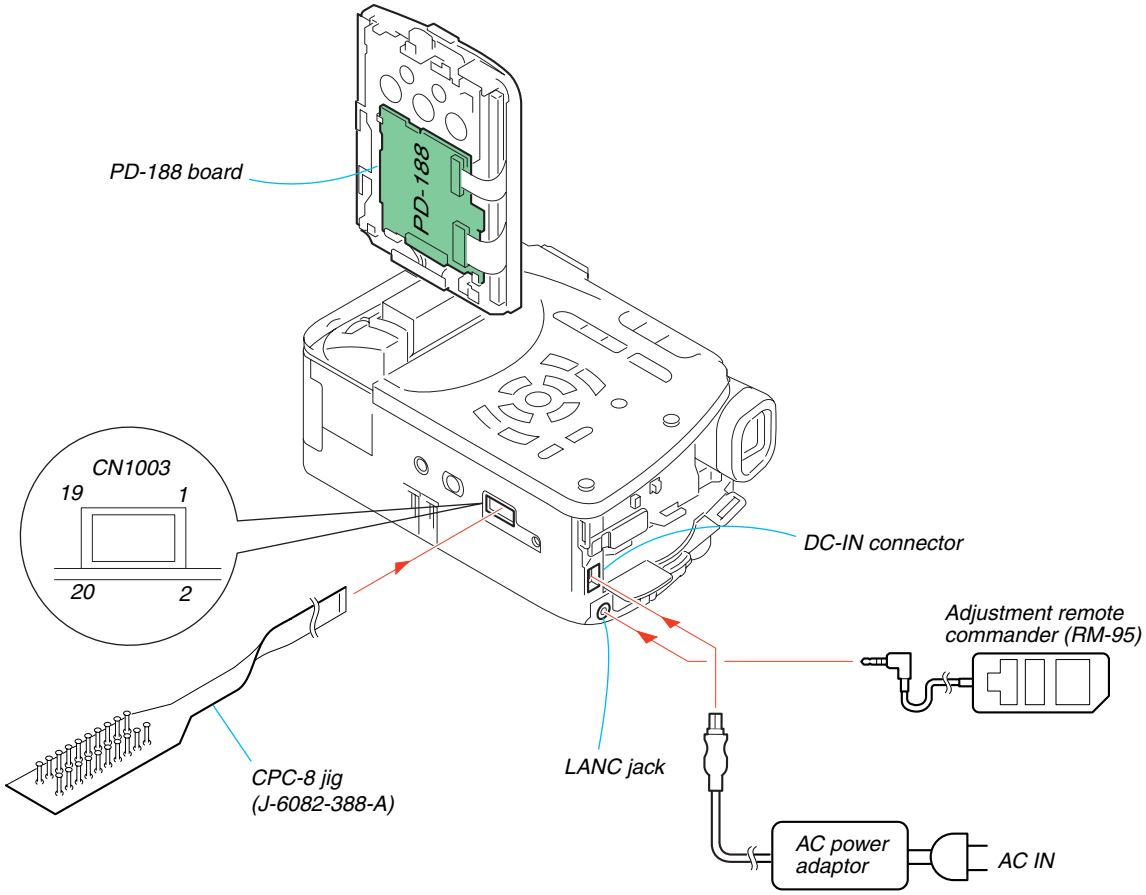
THE DVD DRIVE SECTION..... (page 2-24)

NOTE: Follow the disassembly procedure in the numerical order given.

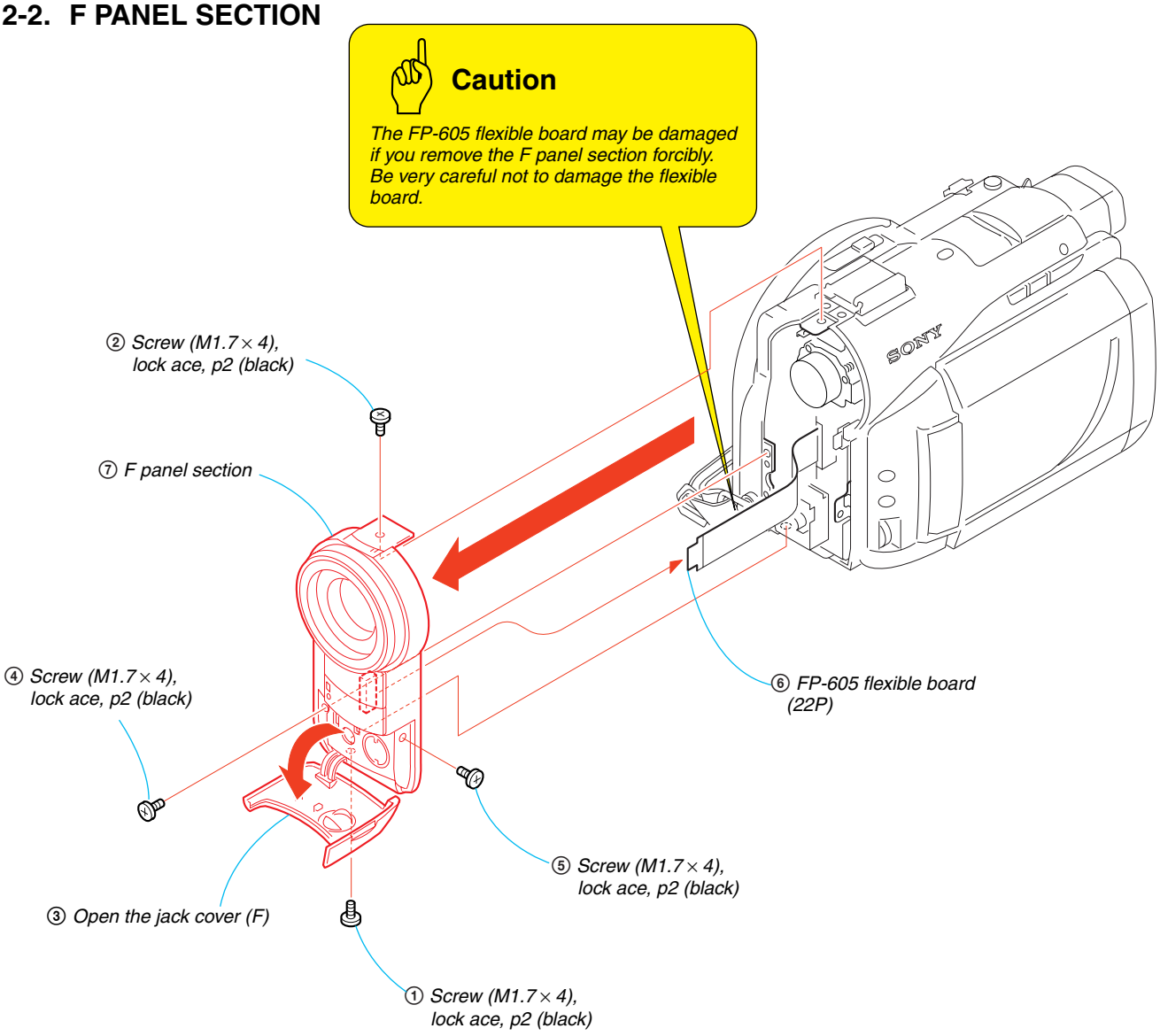
2-1. P CABINET (C) (35) ASSEMBLY (DVD300)



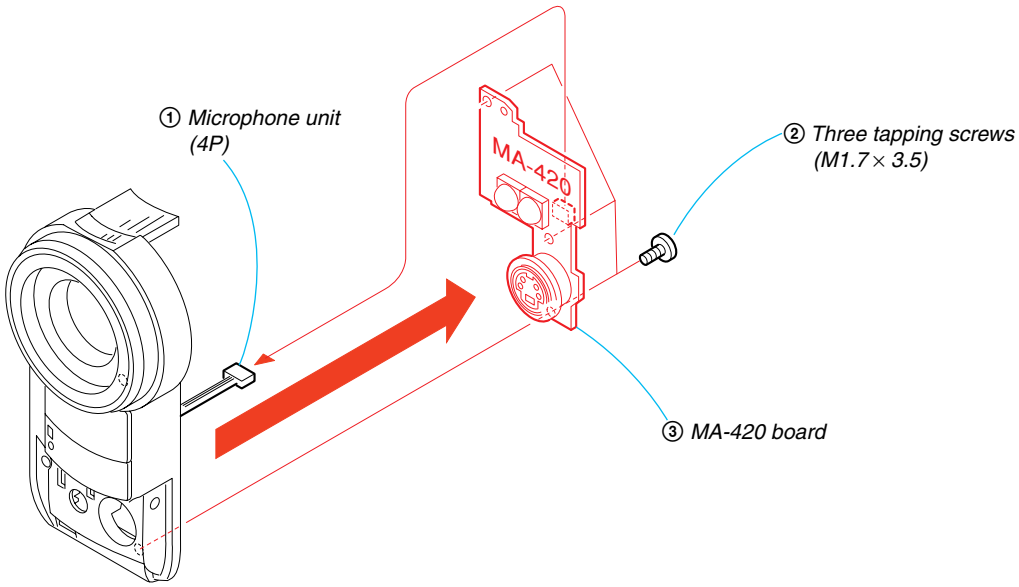
[PD-188 BOARD SERVICE POSITION]



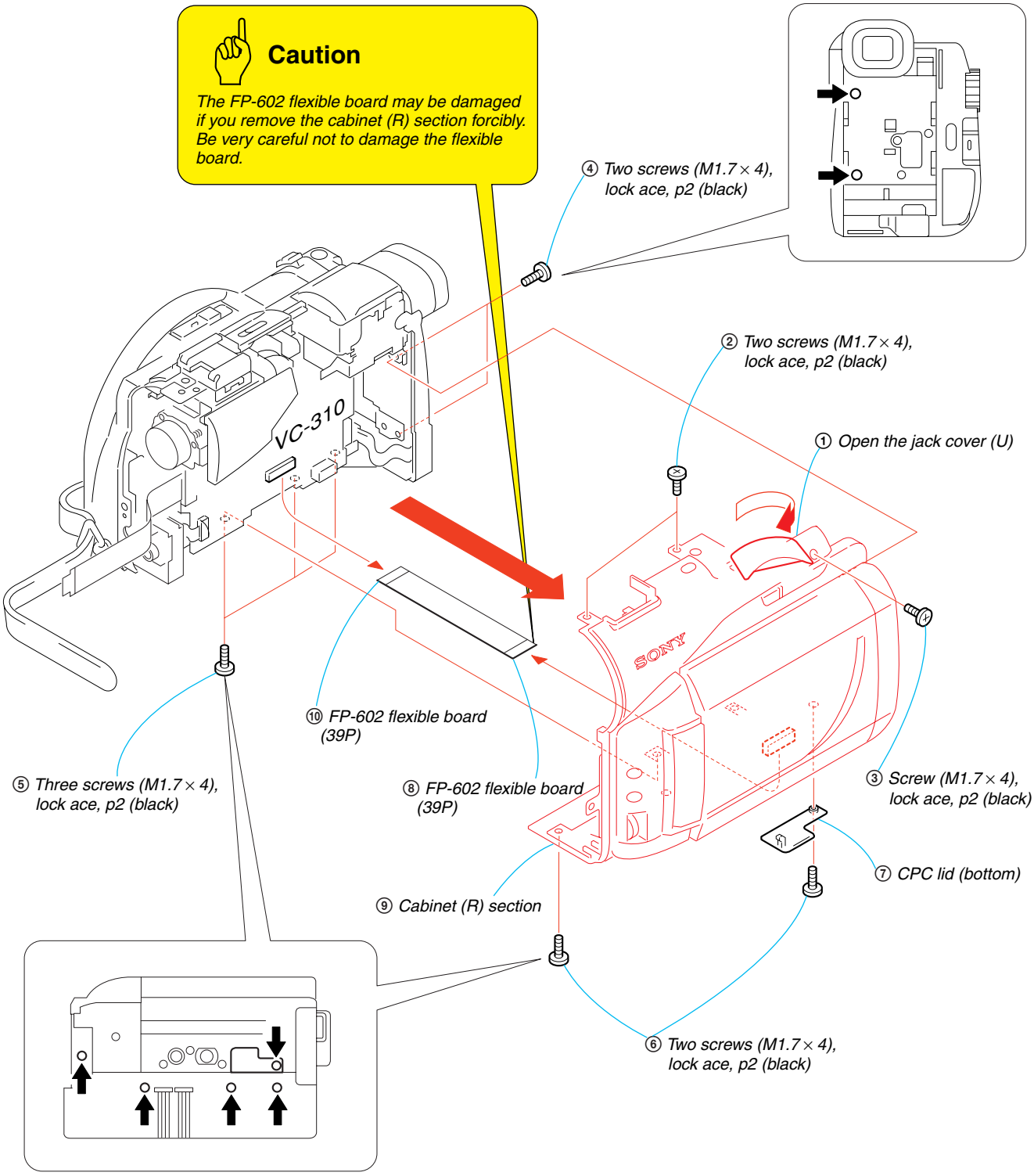
2-2. F PANEL SECTION


Caution
The FP-605 flexible board may be damaged if you remove the F panel section forcibly. Be very careful not to damage the flexible board.
② Screw (M1.7× 4), lock ace, p2 (black)
⑦ F panel section
④ Screw (M1.7× 4), lock ace, p2 (black)
⑥ FP-605 flexible board (22P)
⑤ Screw (M1.7× 4), lock ace, p2 (black)
③ Open the jack cover (F)
① Screw (M1.7× 4), lock ace, p2 (black)
SONY

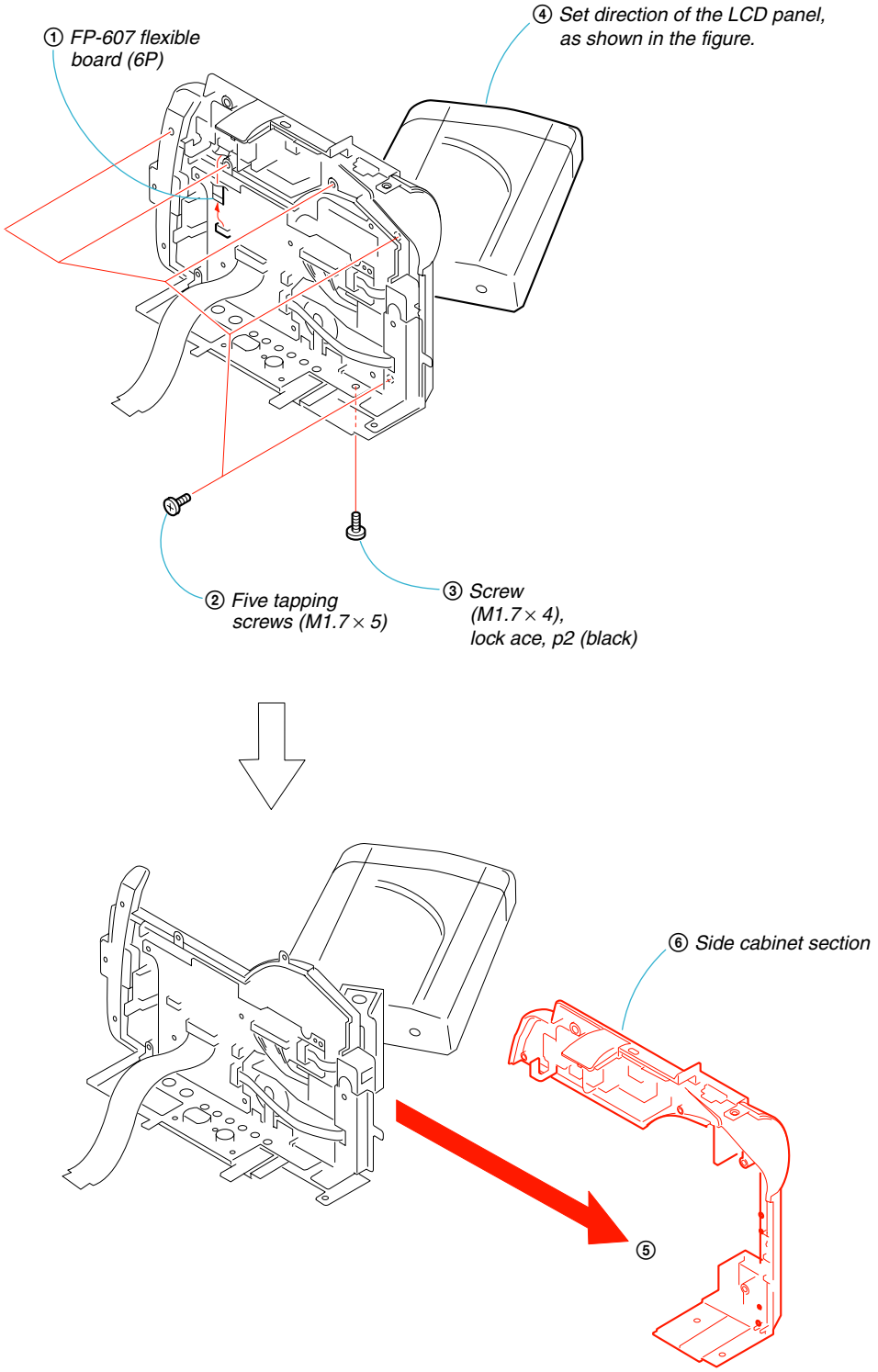
2-3. MA-420 BOARD



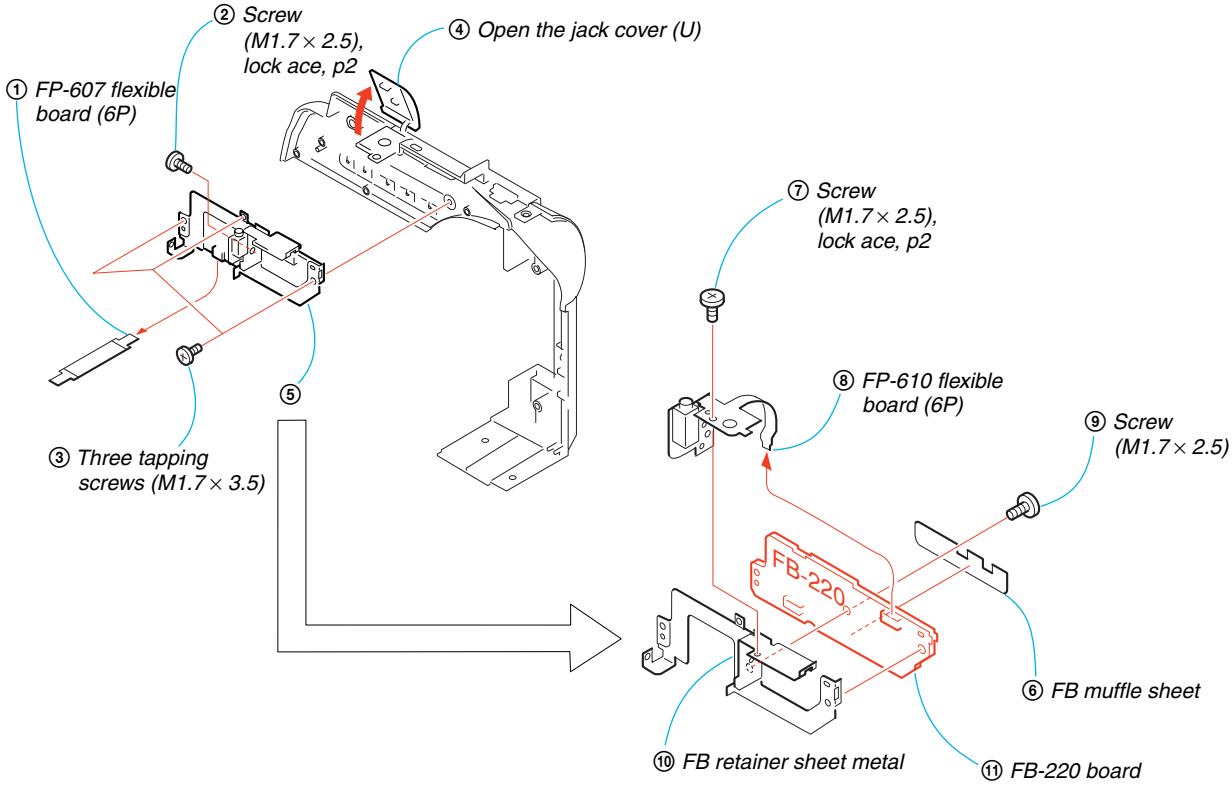
2-4. CABINET (R) SECTION


Caution
The FP-602 flexible board may be damaged if you remove the cabinet (R) section forcibly. Be very careful not to damage the flexible board.
④ Two screws (M1.7 × 4), lock ace, p2 (black)
② Two screws (M1.7 × 4), lock ace, p2 (black)
① Open the jack cover (U)
VC-310
SONY
⑩ FP-602 flexible board (39P)
⑤ Three screws (M1.7 × 4), lock ace, p2 (black)
⑧ FP-602 flexible board (39P)
③ Screw (M1.7 × 4), lock ace, p2 (black)
⑦ CPC lid (bottom)
⑨ Cabinet (R) section
⑥ Two screws (M1.7 × 4), lock ace, p2 (black)

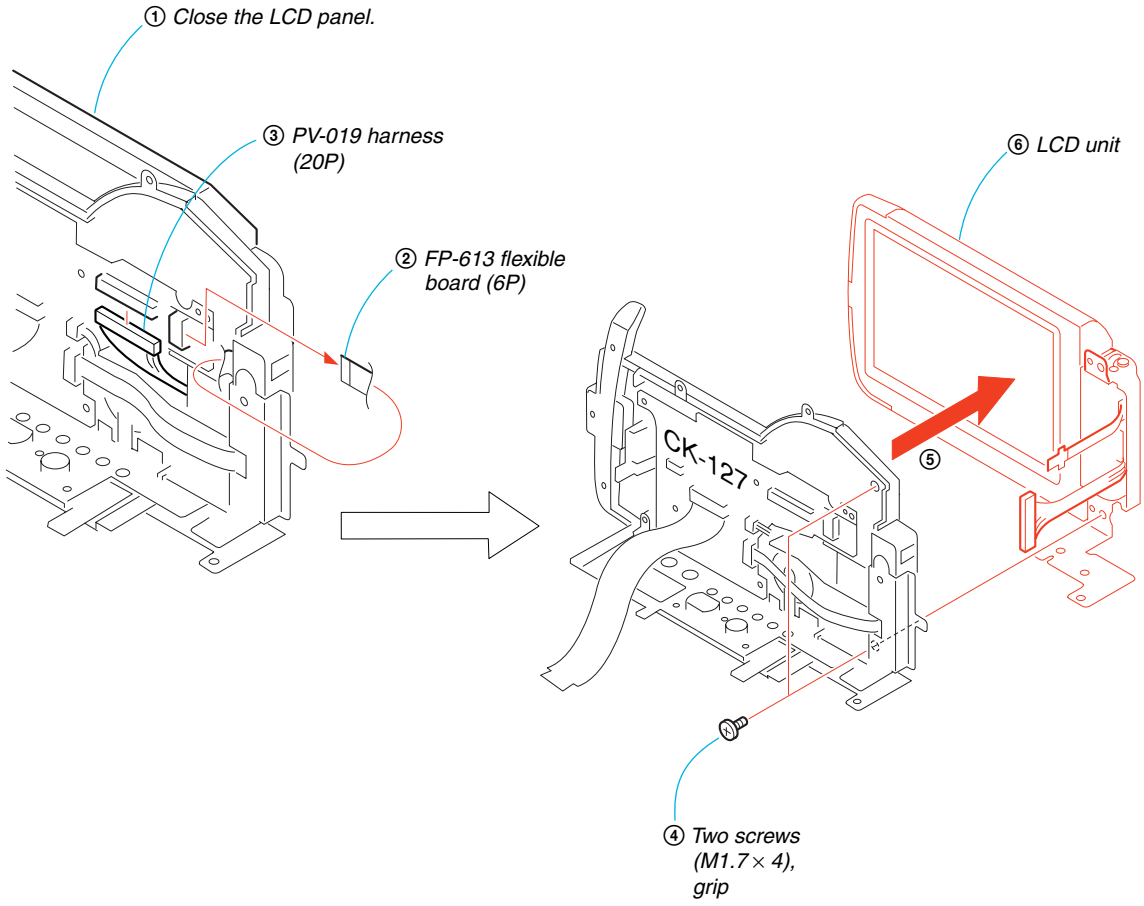
2-5. SIDE CABINET SECTION (DVD300)


① FP-607 flexible board (6P)
④ Set direction of the LCD panel, as shown in the figure.
② Five tapping screws (M1.7 × 5)
③ Screw (M1.7 × 4), lock ace, p2 (black)
⑥ Side cabinet section
⑤

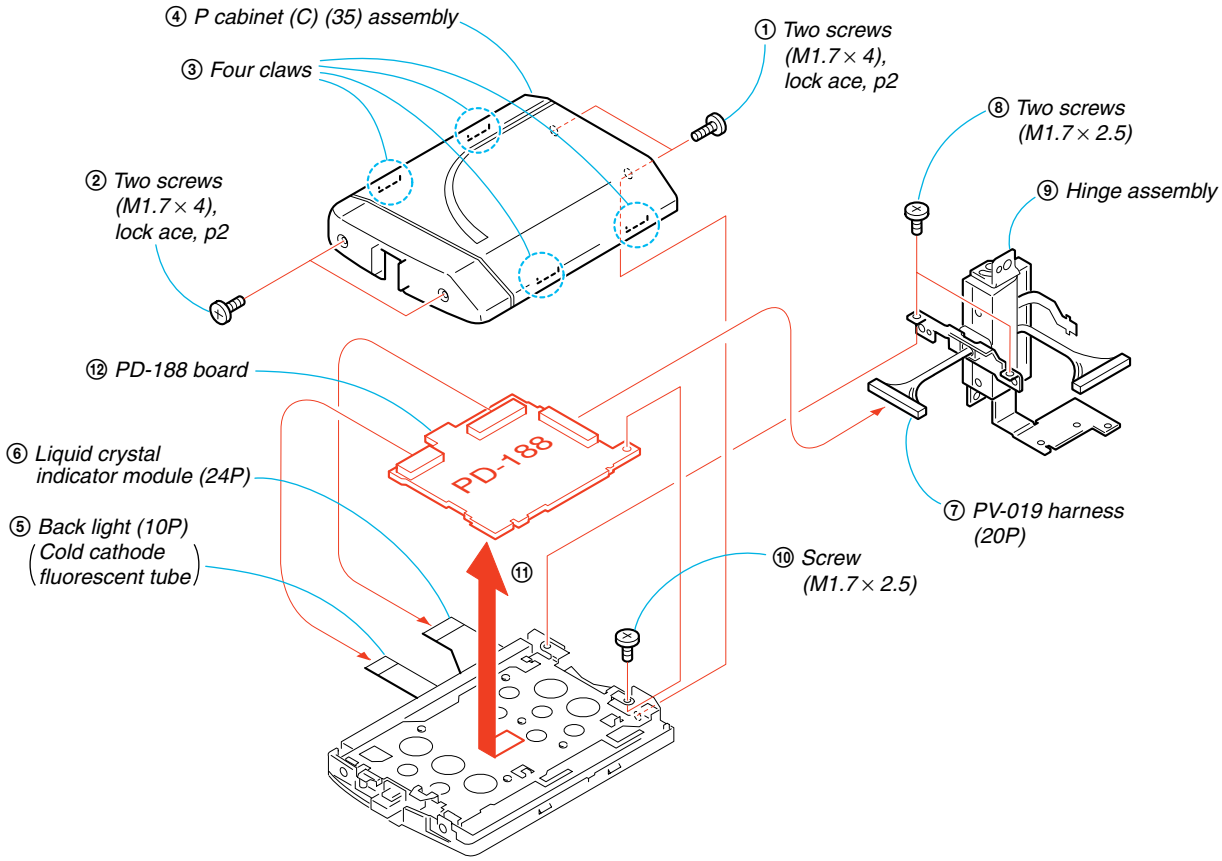
2-6. FB-220 BOARD (DVD300)


② Screw (M1.7 × 2.5), lock ace, p2
④ Open the jack cover (U)
① FP-607 flexible board (6P)
⑦ Screw (M1.7 × 2.5), lock ace, p2
⑧ FP-610 flexible board (6P)
⑨ Screw (M1.7 × 2.5)
⑤
③ Three tapping screws (M1.7 × 3.5)
FB-220
⑥ FB muffle sheet
⑩ FB retainer sheet metal
⑪ FB-220 board

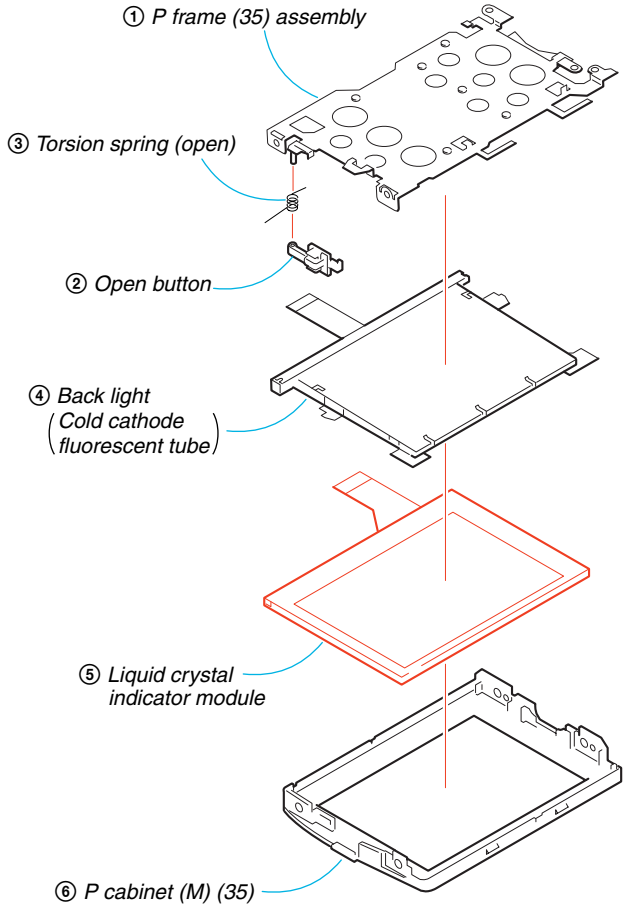
2-7. LCD UNIT (DVD300)



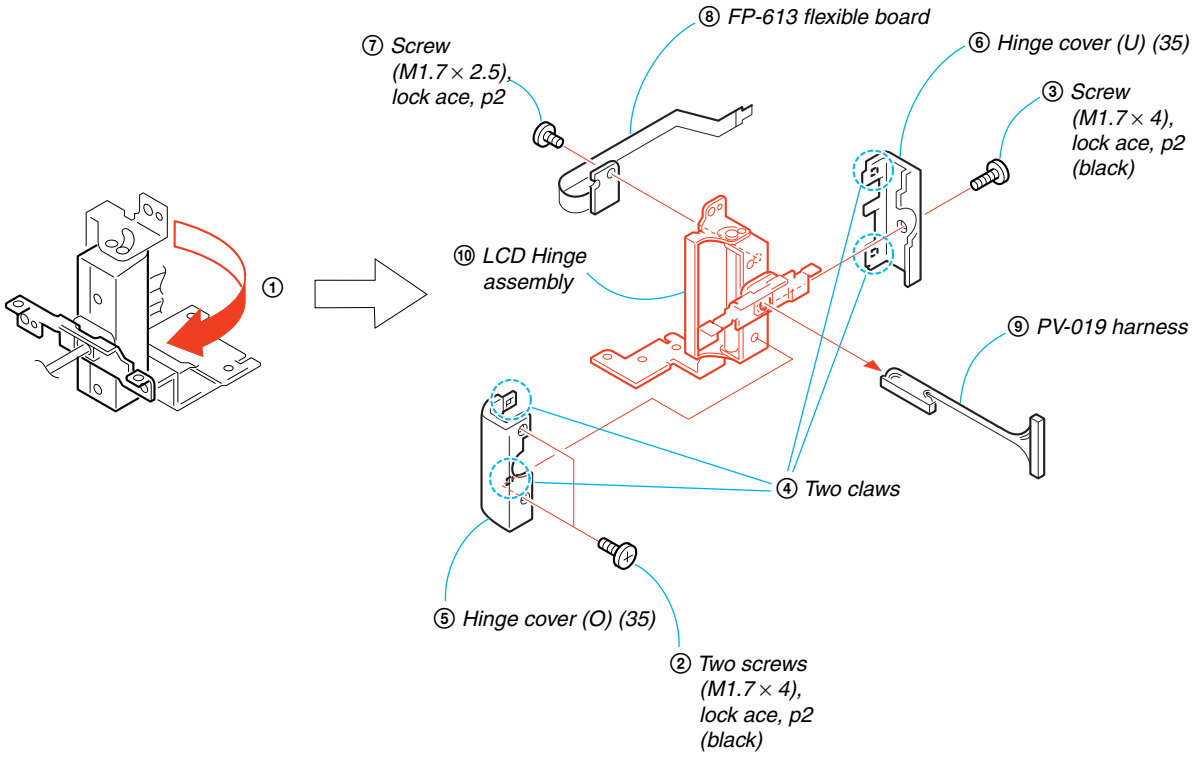
2-8. PD-188 BOARD (DVD300)


④ P cabinet (C) (35) assembly
③ Four claws
① Two screws (M1.7 × 4), lock ace, p2
② Two screws (M1.7 × 4), lock ace, p2
⑧ Two screws (M1.7 × 2.5)
⑨ Hinge assembly
⑫ PD-188 board
PD-188
⑥ Liquid crystal indicator module (24P)
⑤ Back light (10P) (Cold cathode fluorescent tube)
⑪
⑩ Screw (M1.7 × 2.5)
⑦ PV-019 harness (20P)

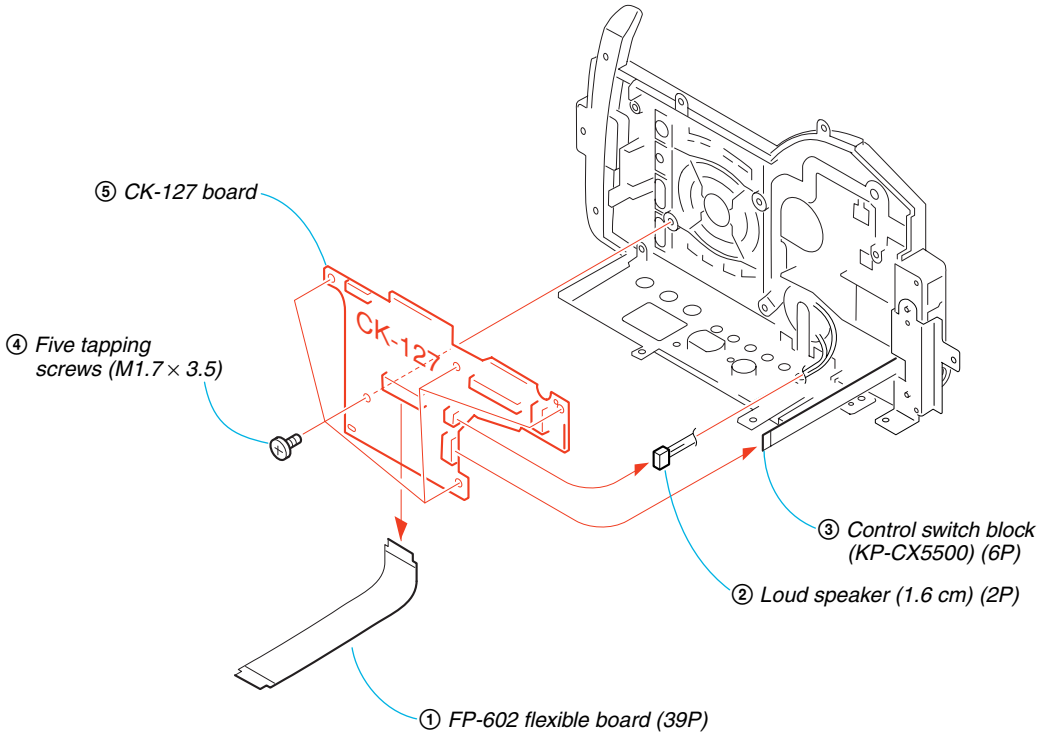
2-9. LIQUID CRYSTAL INDICATOR MODULE (DVD300)


① P frame (35) assembly
③ Torsion spring (open)
② Open button
④ Back light (Cold cathode fluorescent tube)
⑤ Liquid crystal indicator module
⑥ P cabinet (M) (35)

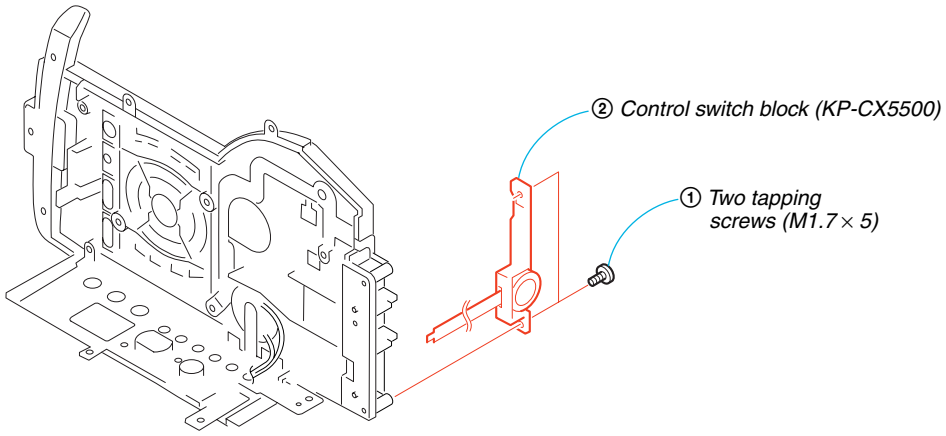
2-10. LCD HINGE ASSEMBLY (DVD300)


⑧ FP-613 flexible board
⑦ Screw (M1.7 × 2.5), lock ace, p2
⑥ Hinge cover (U) (35)
③ Screw (M1.7 × 4), lock ace, p2 (black)
①
⑩ LCD Hinge assembly
⑨ PV-019 harness
④ Two claws
⑤ Hinge cover (O) (35)
② Two screws (M1.7 × 4), lock ace, p2 (black)

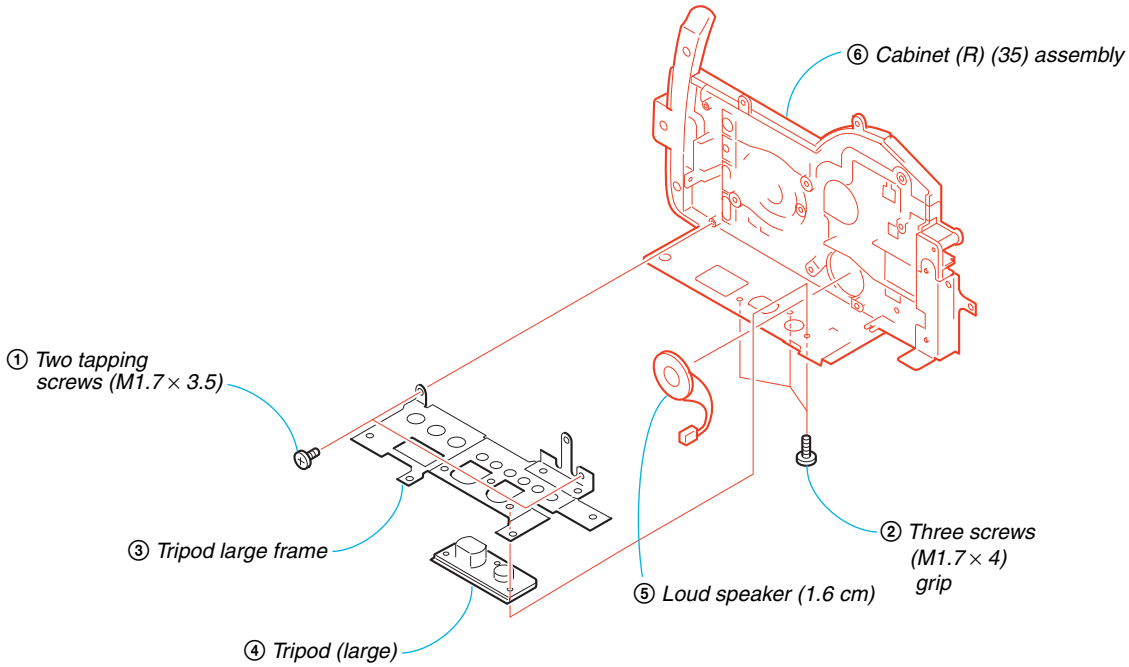
2-11. CK-127 BOARD (DVD300)


⑤ CK-127 board
CK-127
④ Five tapping screws (M1.7 × 3.5)
③ Control switch block (KP-CX5500) (6P)
② Loud speaker (1.6 cm) (2P)
① FP-602 flexible board (39P)

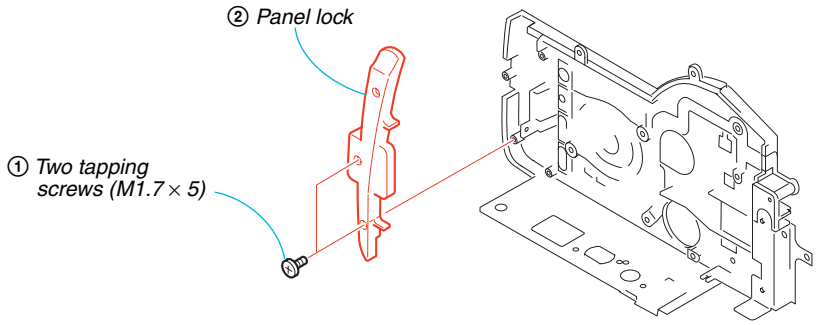
2-12. CONTROL SWITCH BLOCK (KP-CX5500) (DVD300)



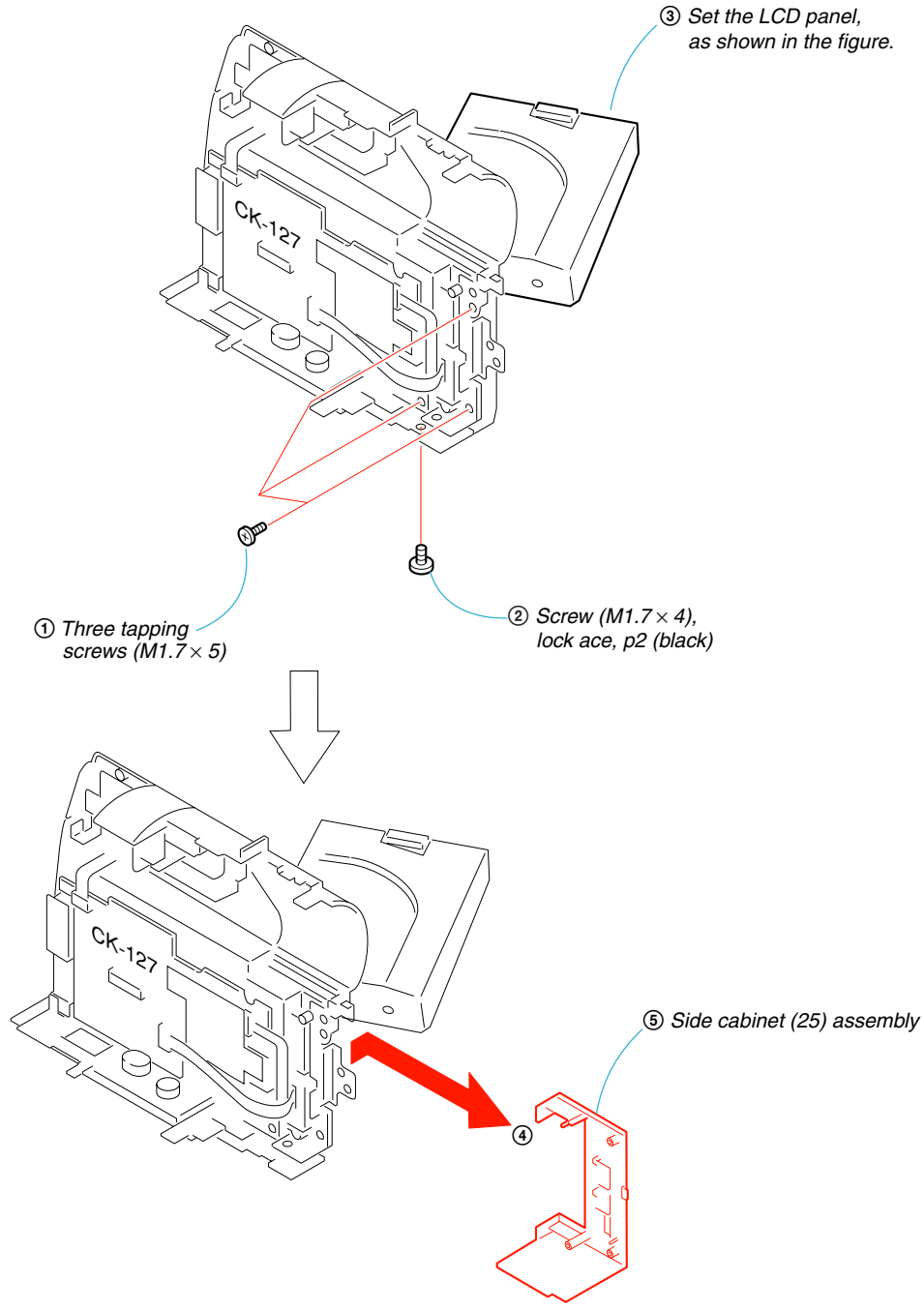
2-13. LOUD SPEAKER (1.6 cm), CABINET (R) (35) ASSEMBLY (DVD300)


⑥ Cabinet (R) (35) assembly
① Two tapping screws (M1.7 × 3.5)
③ Tripod large frame
④ Tripod (large)
⑤ Loud speaker (1.6 cm)
② Three screws (M1.7 × 4) grip

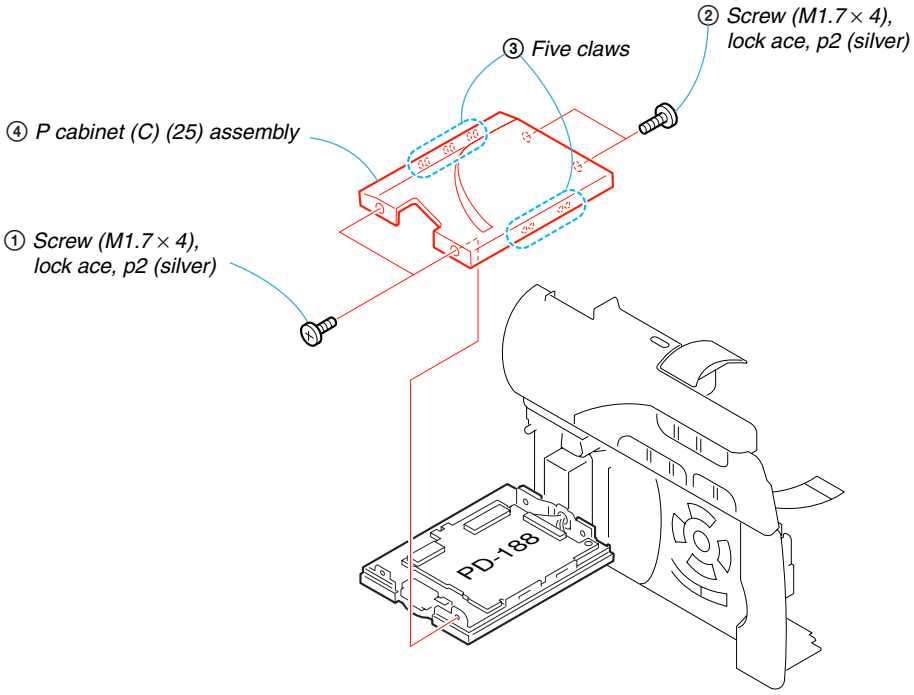
2-14. PANEL LOCK (DVD300)



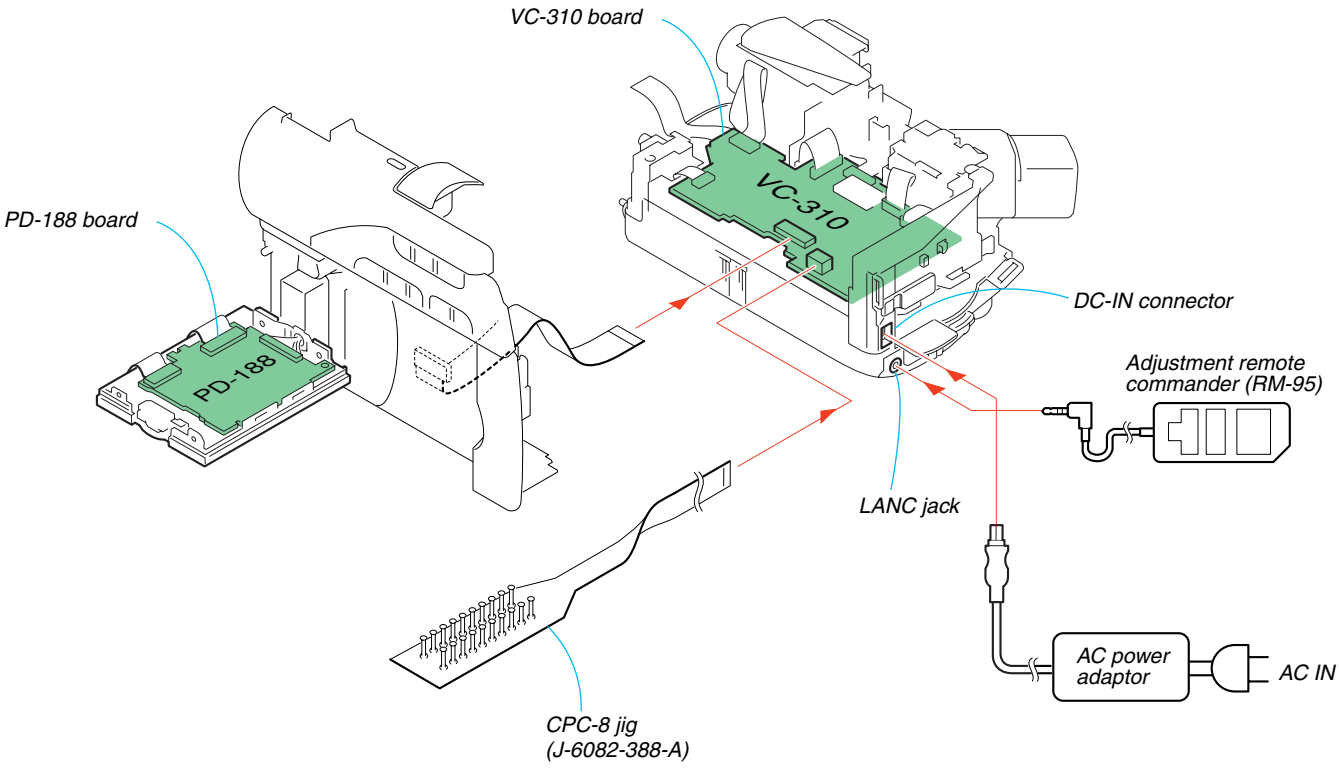
2-15. SIDE CABINET (25) ASSEMBLY (DVD200/DVD200E)


③ Set the LCD panel, as shown in the figure.
CK-127
① Three tapping screws (M1.7 × 5)
② Screw (M1.7 × 4), lock ace, p2 (black)
CK-127
⑤ Side cabinet (25) assembly
④

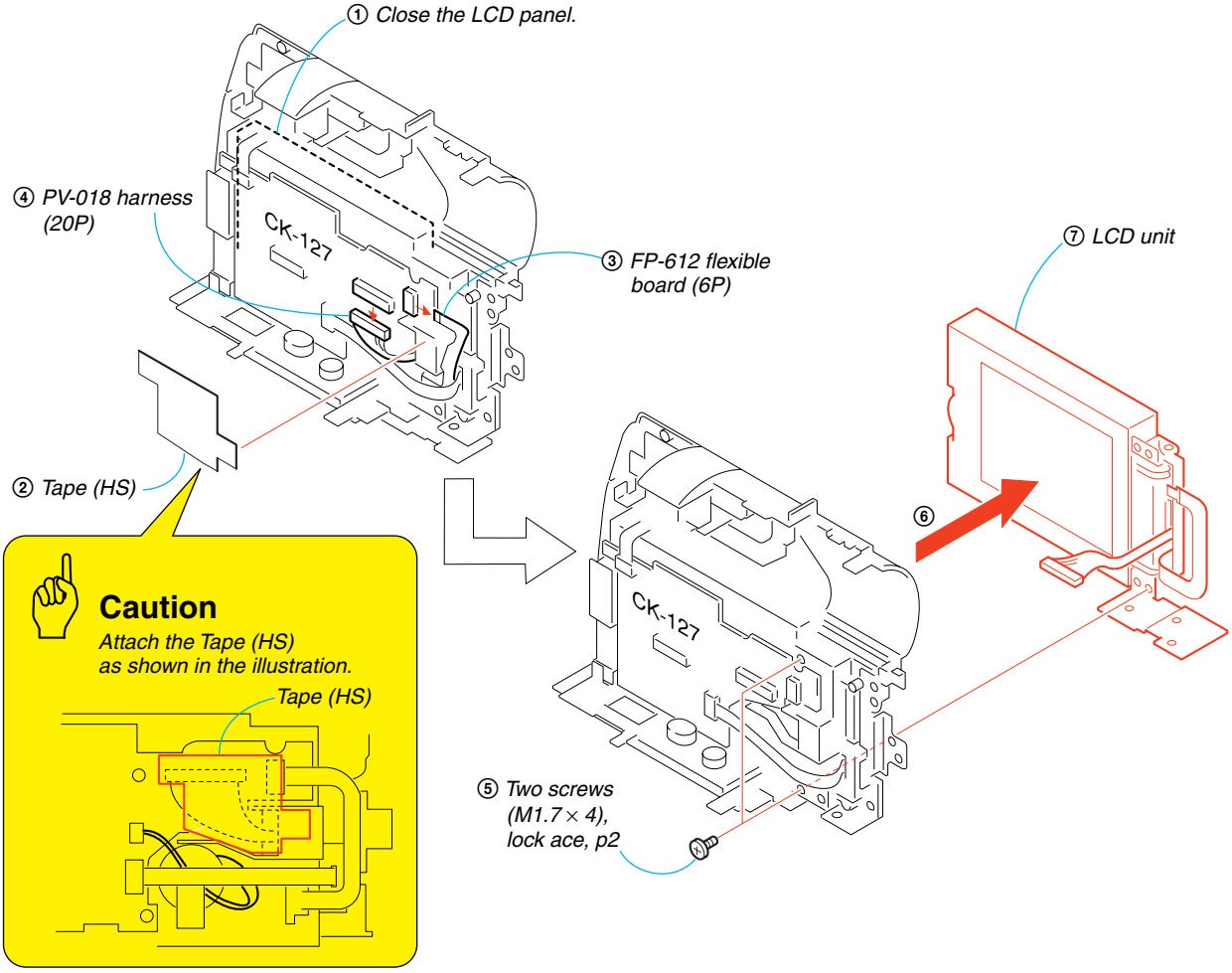
2-16. P CABINET (C) (25M) ASSEMBLY (DVD200/DVD200E)



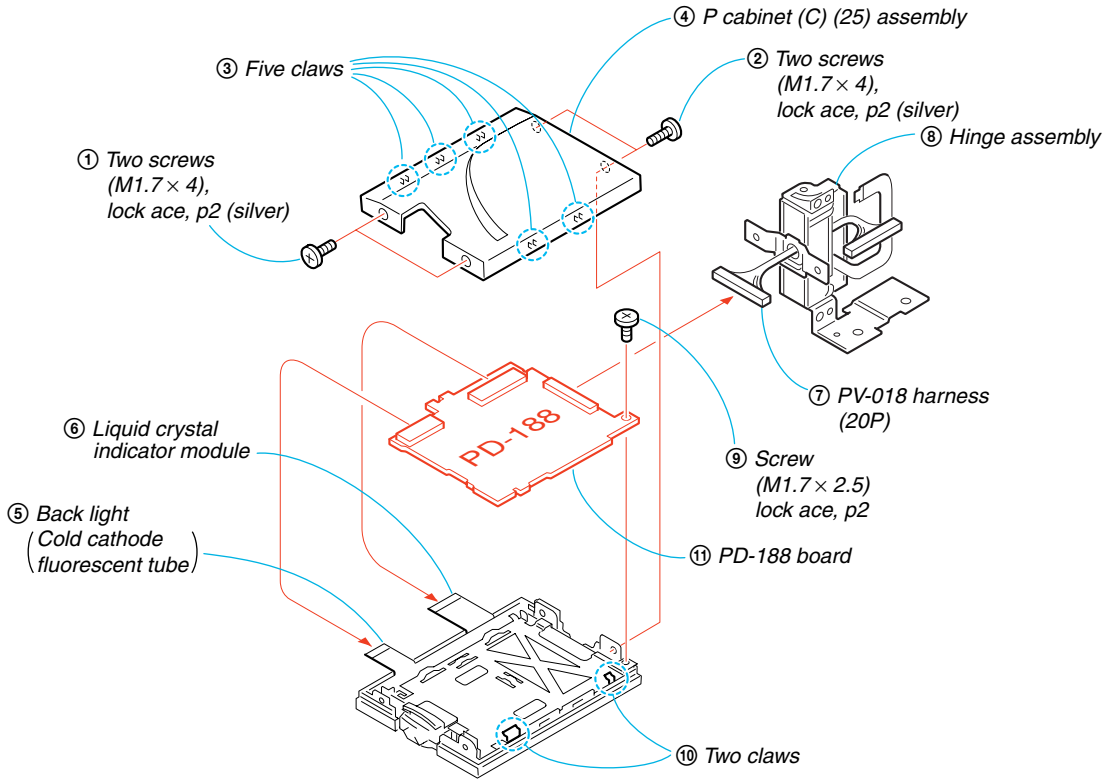
[PD-188 BOARD SERVICE POSITION]



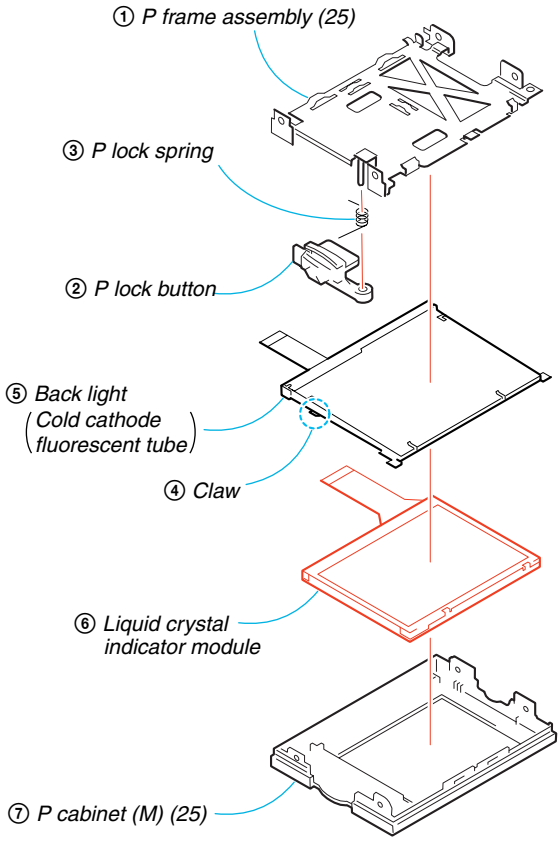
2-17. LCD UNIT (DVD200/DVD200E)



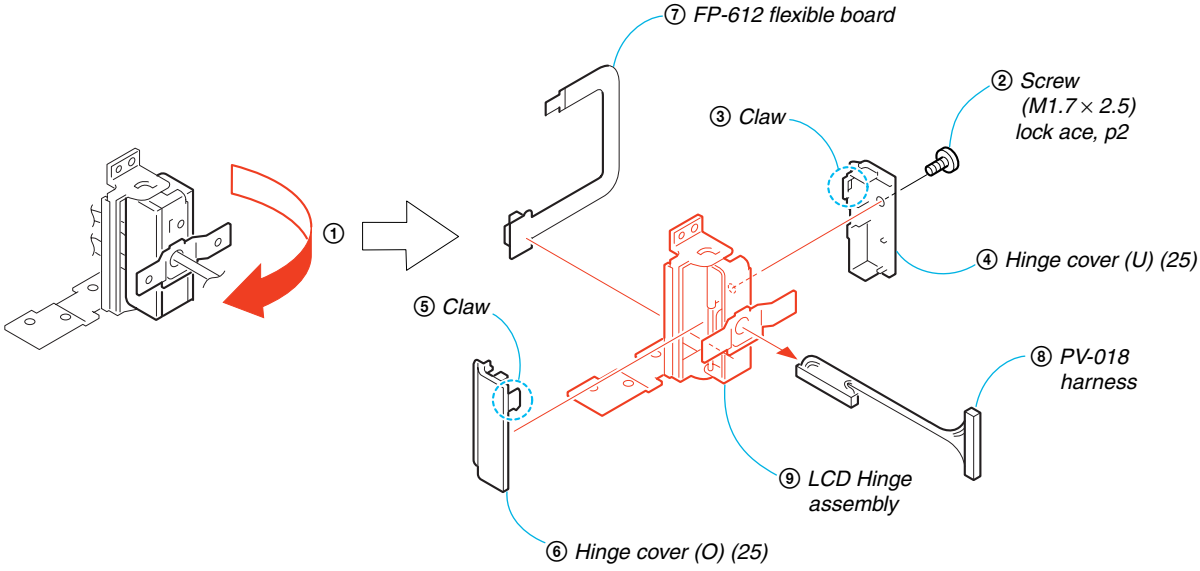
2-18. PD-188 BOARD (DVD200/DVD200E)


④ P cabinet (C) (25) assembly
③ Five claws
② Two screws (M1.7 × 4), lock ace, p2 (silver)
⑧ Hinge assembly
① Two screws (M1.7 × 4), lock ace, p2 (silver)
⑦ PV-018 harness (20P)
⑥ Liquid crystal indicator module
PD-188
⑨ Screw (M1.7 × 2.5) lock ace, p2
⑤ Back light (Cold cathode fluorescent tube)
⑪ PD-188 board
⑩ Two claws

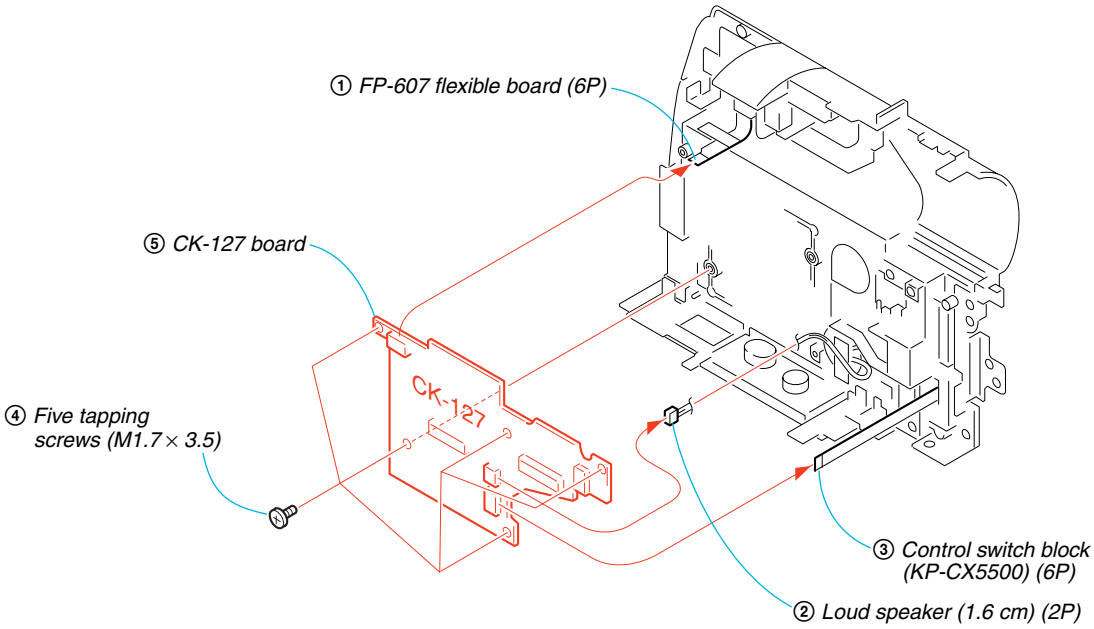
2-19. LIQUID CRYSTAL INDICATOR MODULE (DVD200/DVD200E)



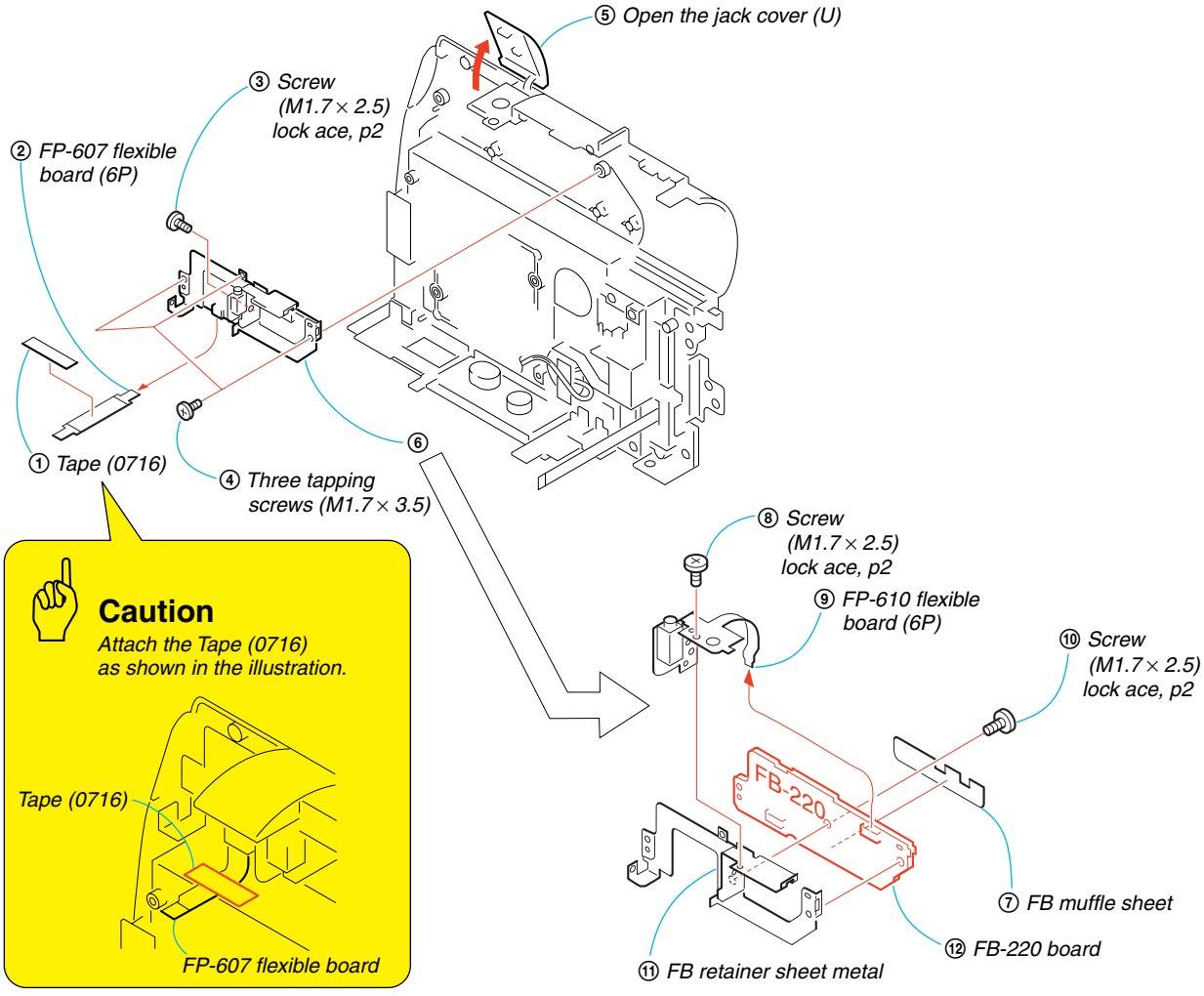
2-20. LCD HINGE ASSEMBLY (DVD200/DVD200E)



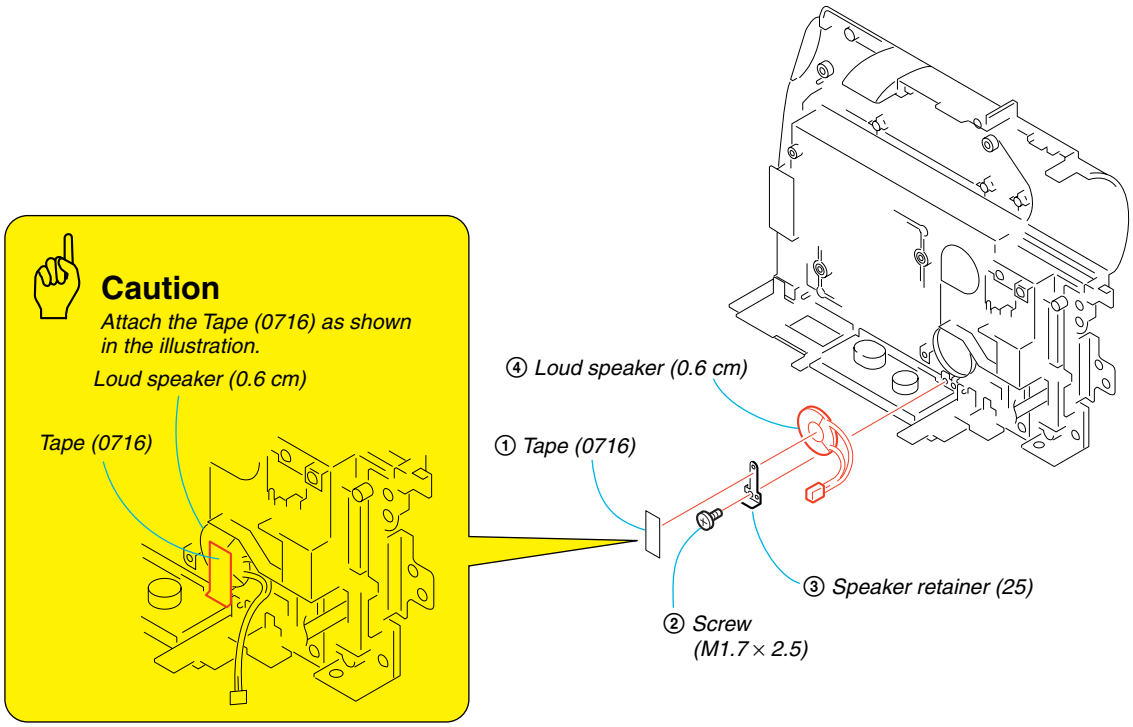
2-21. CK-127 BOARD (DVD200/DVD200E)


① FP-607 flexible board (6P)
⑤ CK-127 board
④ Five tapping screws (M1.7 × 3.5)
CK-127
③ Control switch block (KP-CX5500) (6P)
② Loud speaker (1.6 cm) (2P)

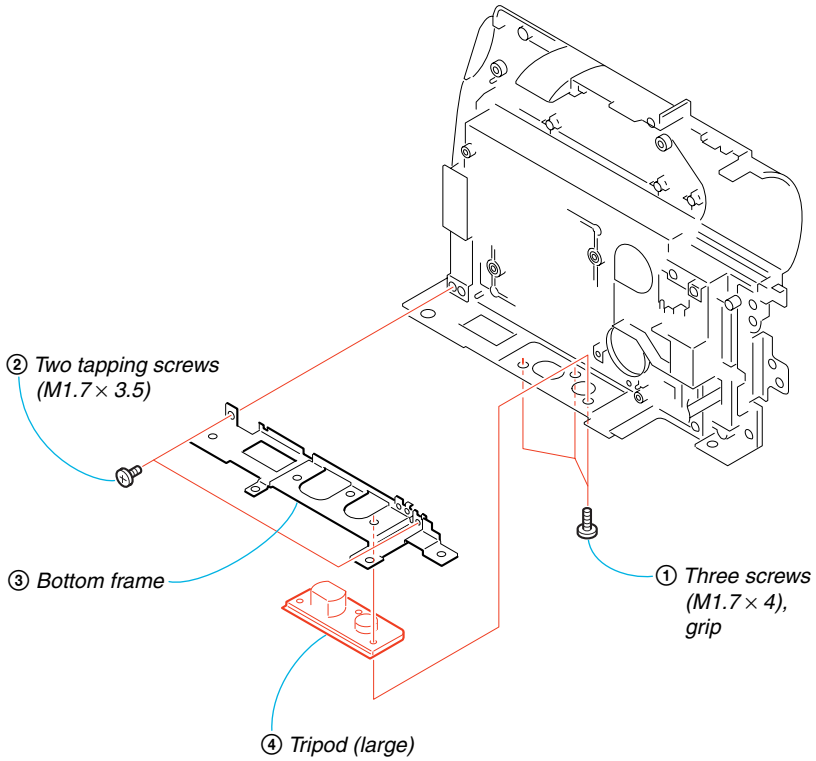
2-22. FB-220 BOARD (DVD200/DVD200E)


⑤ Open the jack cover (U)
③ Screw (M1.7 × 2.5) lock ace, p2
② FP-607 flexible board (6P)
① Tape (0716)
④ Three tapping screws (M1.7 × 3.5)
⑥
⑧ Screw (M1.7 × 2.5) lock ace, p2
⑨ FP-610 flexible board (6P)
⑩ Screw (M1.7 × 2.5) lock ace, p2
FB-220
⑦ FB muffle sheet
⑫ FB-220 board
⑪ FB retainer sheet metal
Caution
Attach the Tape (0716) as shown in the illustration.
Tape (0716)
FP-607 flexible board

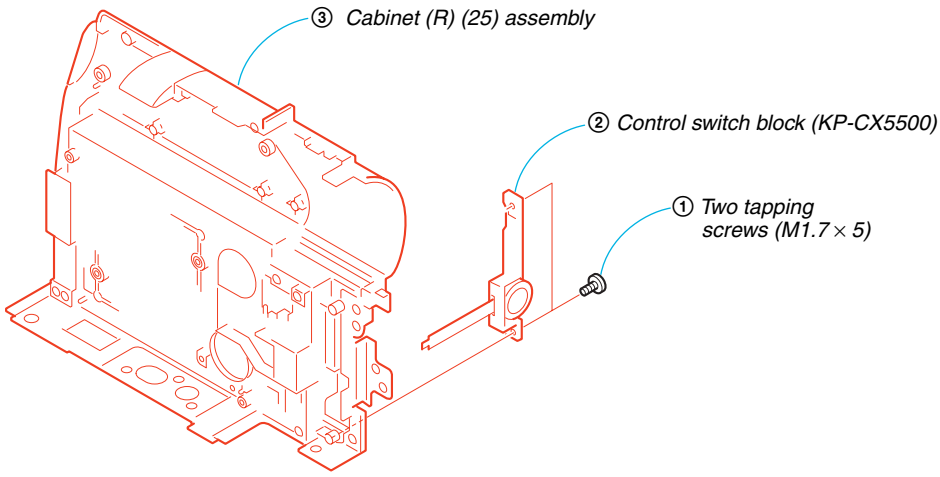
2-23. LOUD SPEAKER (1.6 cm) (DVD200/DVD200E)


Caution
Attach the Tape (0716) as shown in the illustration.
Loud speaker (0.6 cm)
Tape (0716)
④ Loud speaker (0.6 cm)
① Tape (0716)
③ Speaker retainer (25)
② Screw (M1.7 × 2.5)

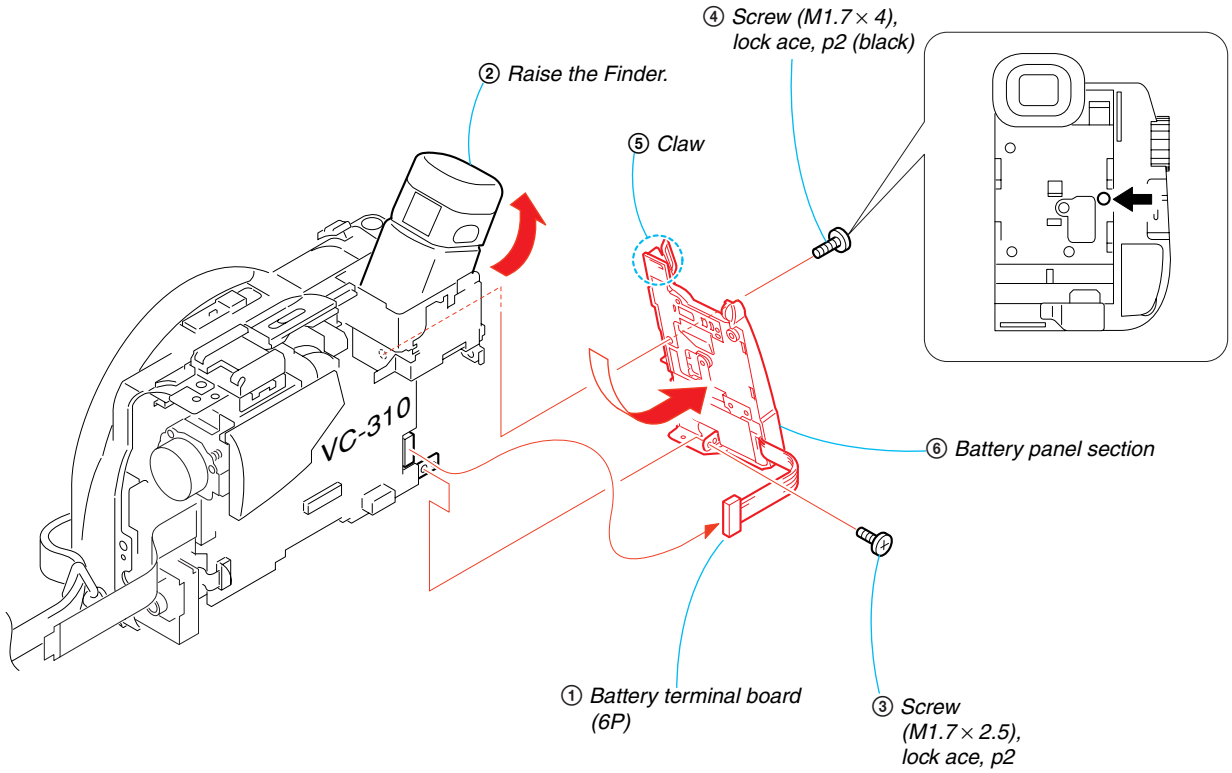
2-24. TRIPOD (LARGE) (DVD200/DVD200E)



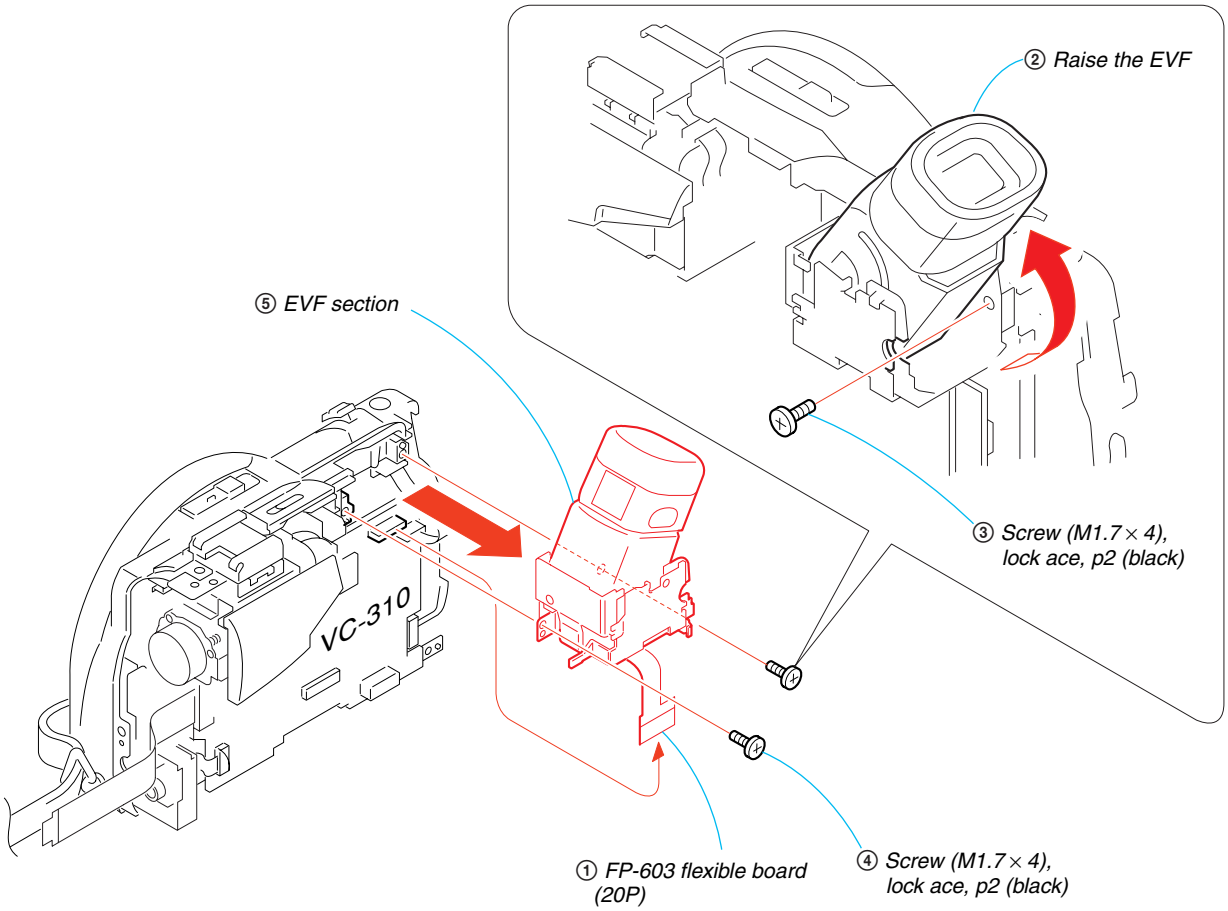
2-25. CONTROL SWITCH BLOCK (KP-CX5500), CABINET (R) (25) ASSEMBLY (DVD200/DVD200E)



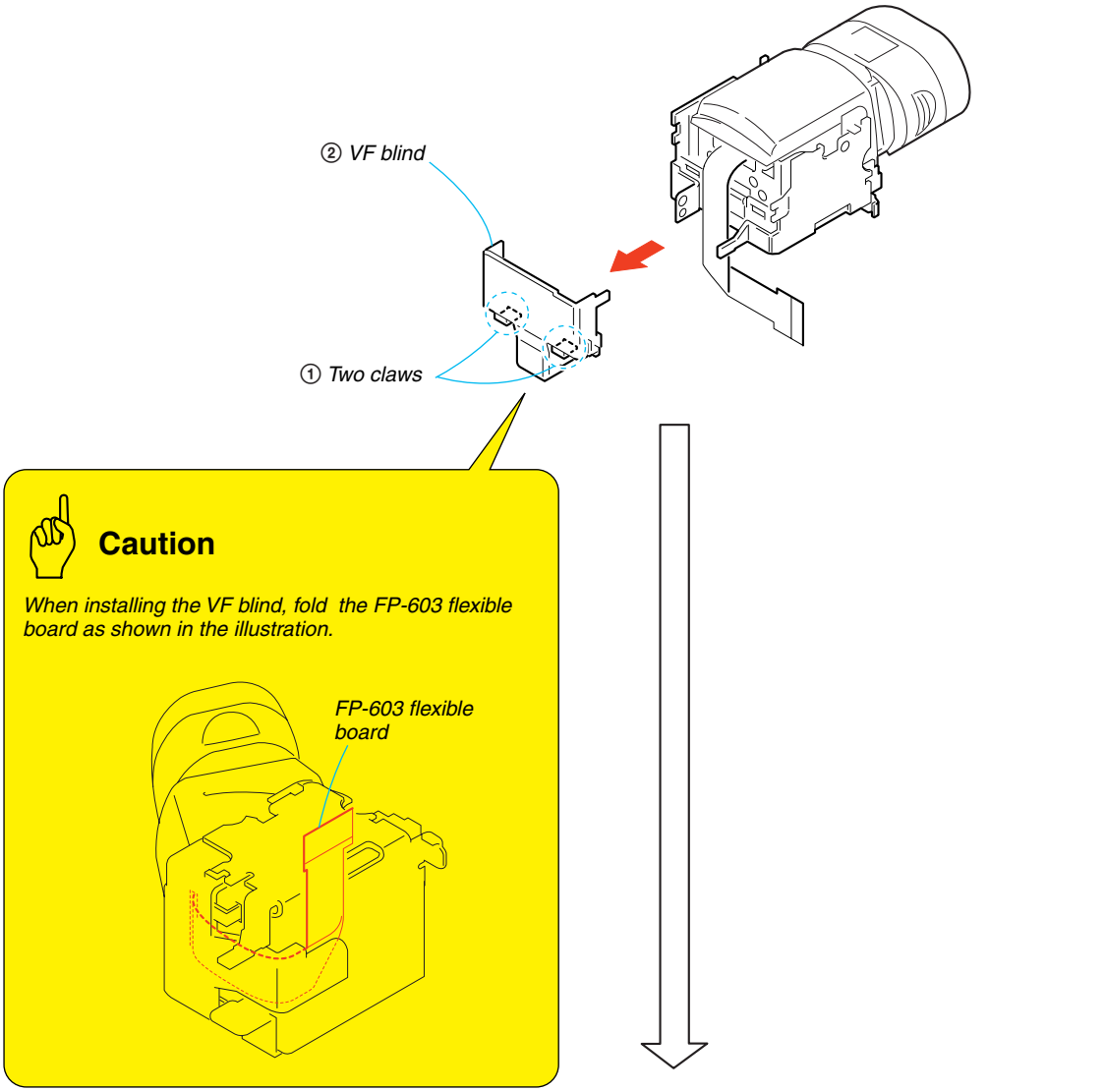
2-26. BATTERY PANEL SECTION

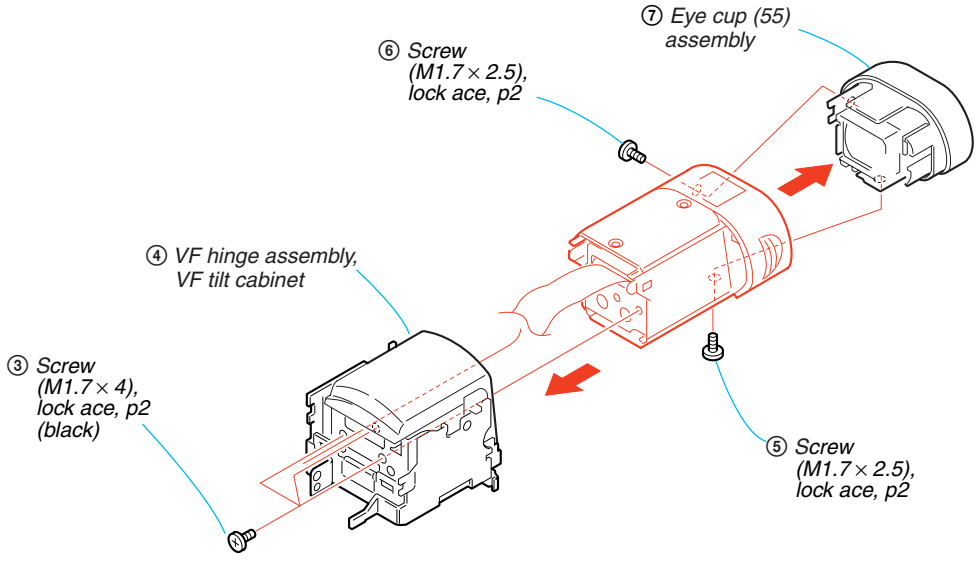

④ Screw (M1.7 × 4), lock ace, p2 (black)
② Raise the Finder.
⑤ Claw
VC-310
⑥ Battery panel section
① Battery terminal board (6P)
③ Screw (M1.7 × 2.5), lock ace, p2

2-27. EVF SECTION

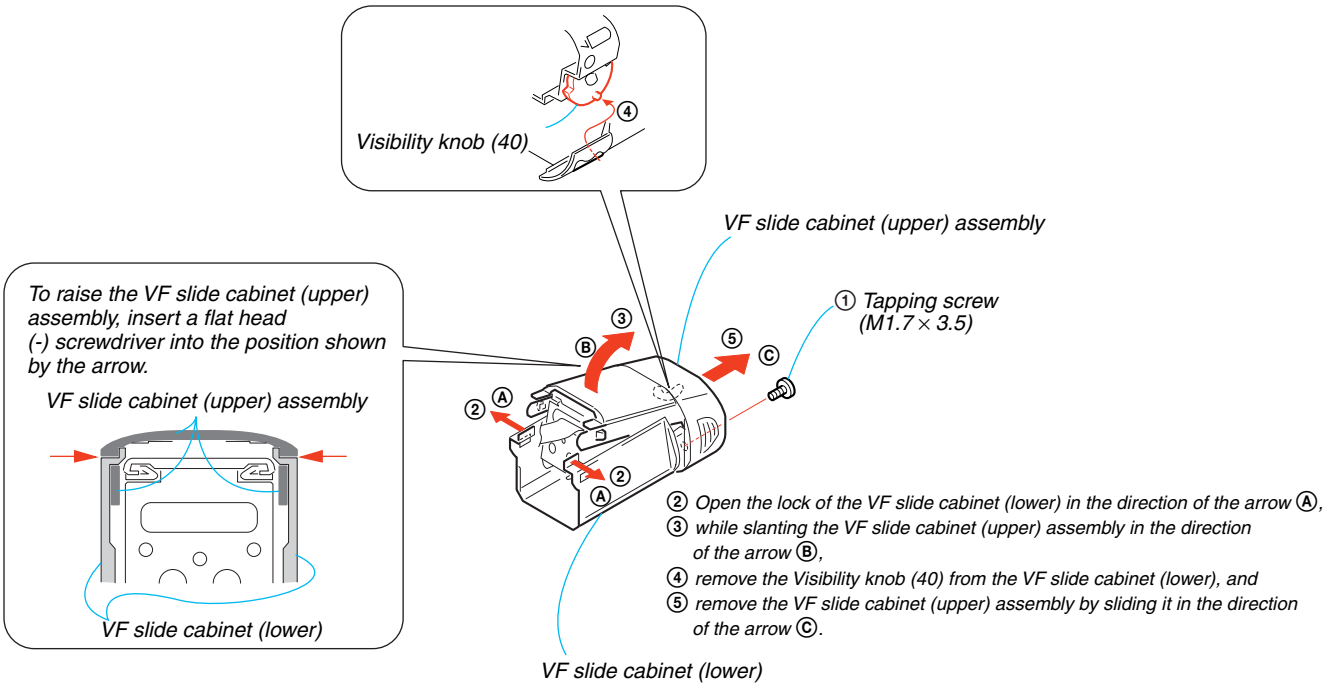


2-28. LB-084 BOARD (REMOVING OF THE EVF)-1

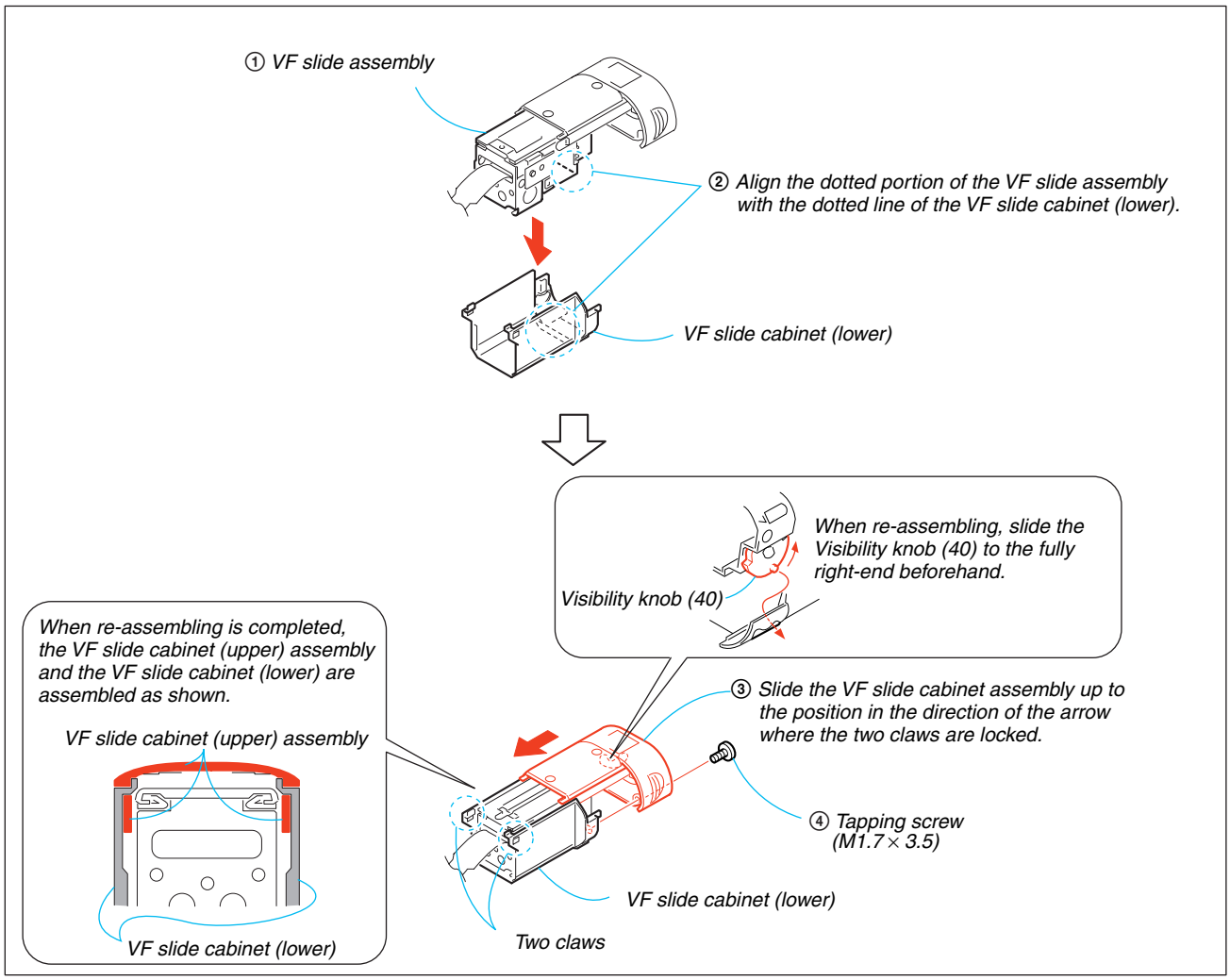

② VF blind
① Two claws
Caution
When installing the VF blind, fold the FP-603 flexible board as shown in the illustration.
FP-603 flexible board


⑦ Eye cup (55) assembly
⑥ Screw (M1.7 × 2.5), lock ace, p2
④ VF hinge assembly, VF tilt cabinet
③ Screw (M1.7 × 4), lock ace, p2 (black)
⑤ Screw (M1.7 × 2.5), lock ace, p2

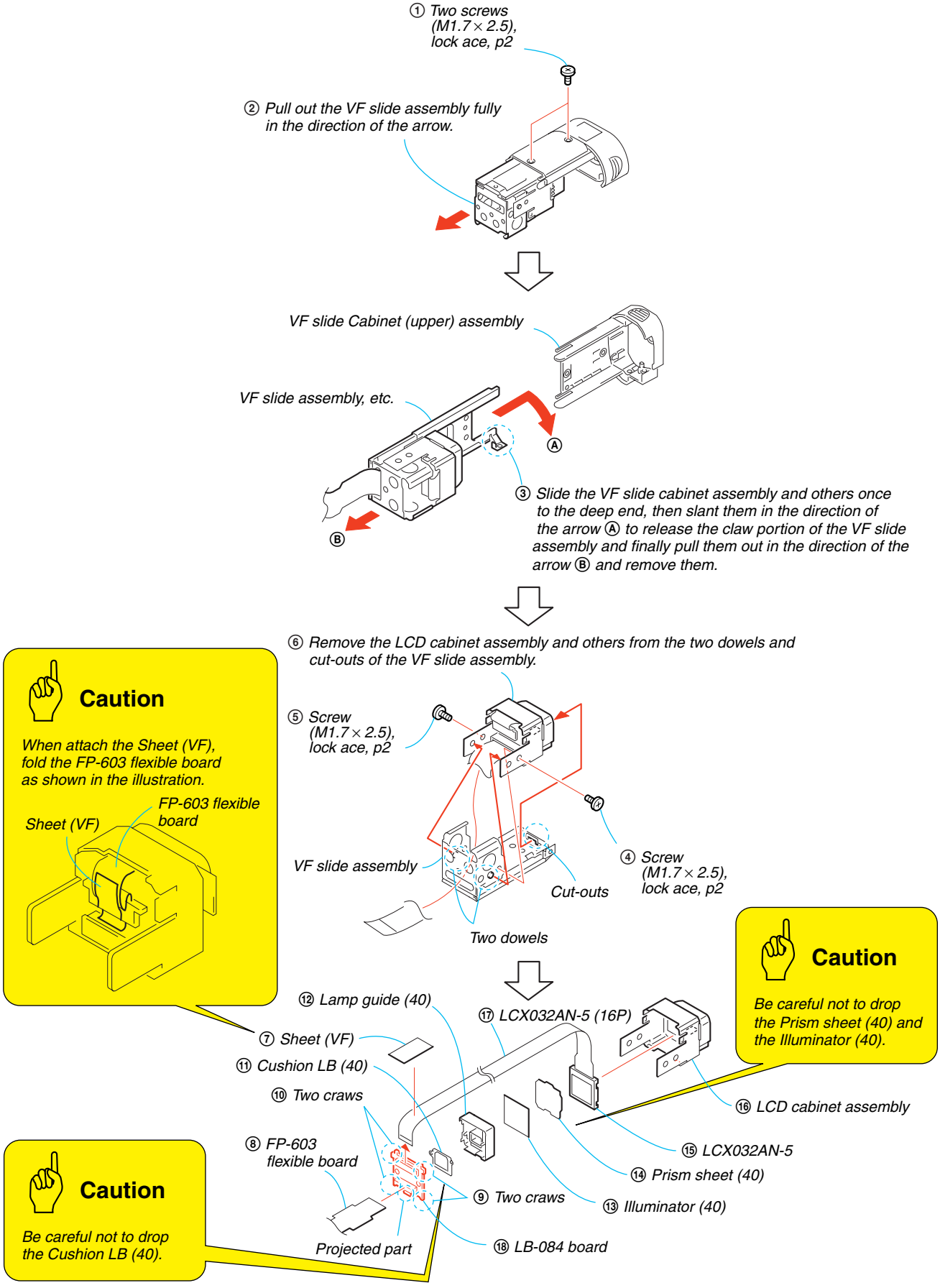
2-29. LB-084 BOARD (REMOVING OF THE EVF)-2


Visibility knob (40)
④
VF slide cabinet (upper) assembly
① Tapping screw (M1.7 × 3.5)
To raise the VF slide cabinet (upper) assembly, insert a flat head (-) screwdriver into the position shown by the arrow.
VF slide cabinet (upper) assembly
VF slide cabinet (lower)
③
Ⓑ
⑤
Ⓒ
②
Ⓐ
② Open the lock of the VF slide cabinet (lower) in the direction of the arrow Ⓐ,
③ while slanting the VF slide cabinet (upper) assembly in the direction of the arrow Ⓑ,
④ remove the Visibility knob (40) from the VF slide cabinet (lower), and
⑤ remove the VF slide cabinet (upper) assembly by sliding it in the direction of the arrow Ⓒ.
VF slide cabinet (lower)

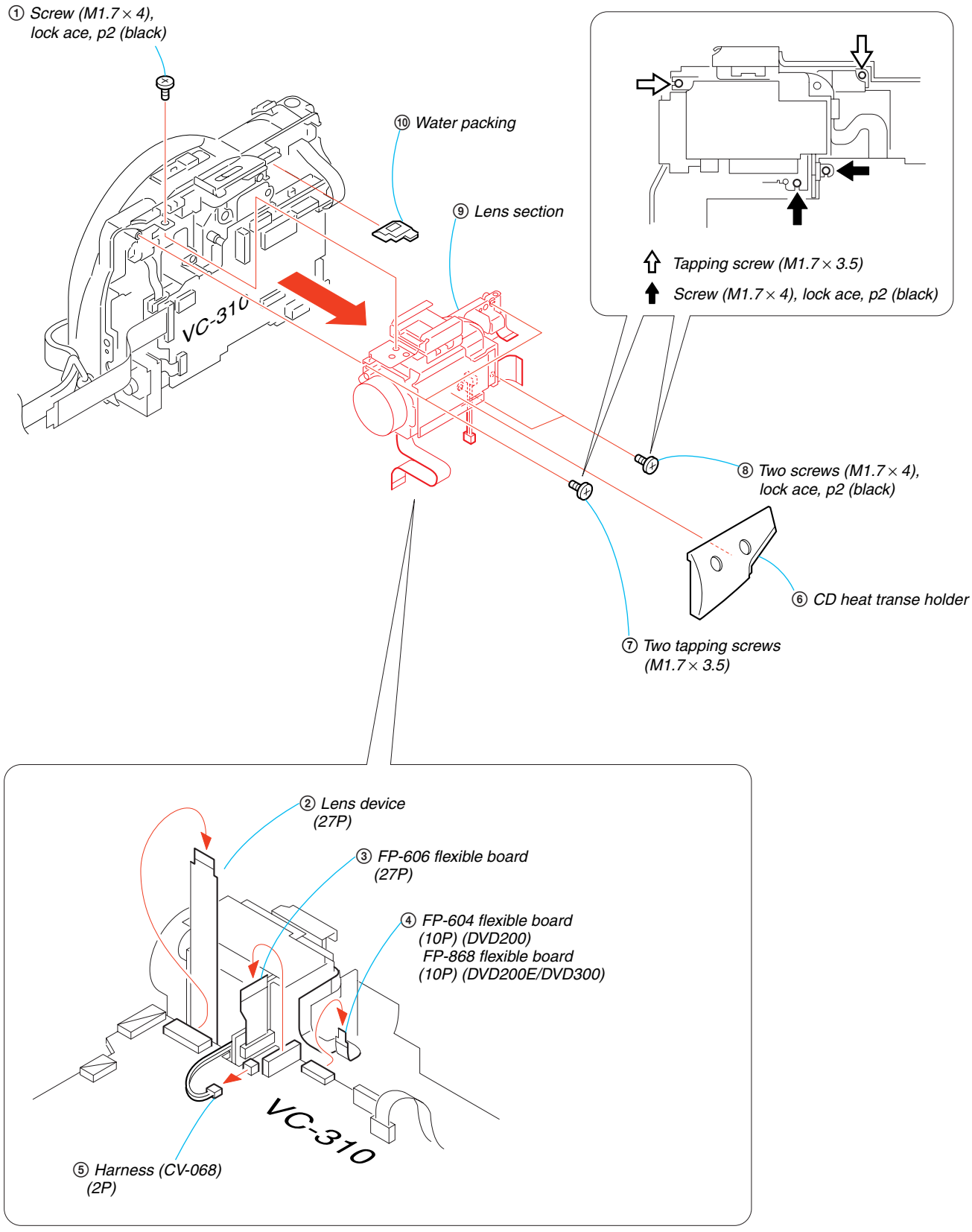
RE-ASSEMBLING THE VF SLIDE CABINET


① VF slide assembly
② Align the dotted portion of the VF slide assembly with the dotted line of the VF slide cabinet (lower).
VF slide cabinet (lower)
When re-assembling, slide the Visibility knob (40) to the fully right-end beforehand.
Visibility knob (40)
When re-assembling is completed, the VF slide cabinet (upper) assembly and the VF slide cabinet (lower) are assembled as shown.
VF slide cabinet (upper) assembly
VF slide cabinet (lower)
③ Slide the VF slide cabinet assembly up to the position in the direction of the arrow where the two claws are locked.
④ Tapping screw (M1.7 × 3.5)
VF slide cabinet (lower)
Two claws

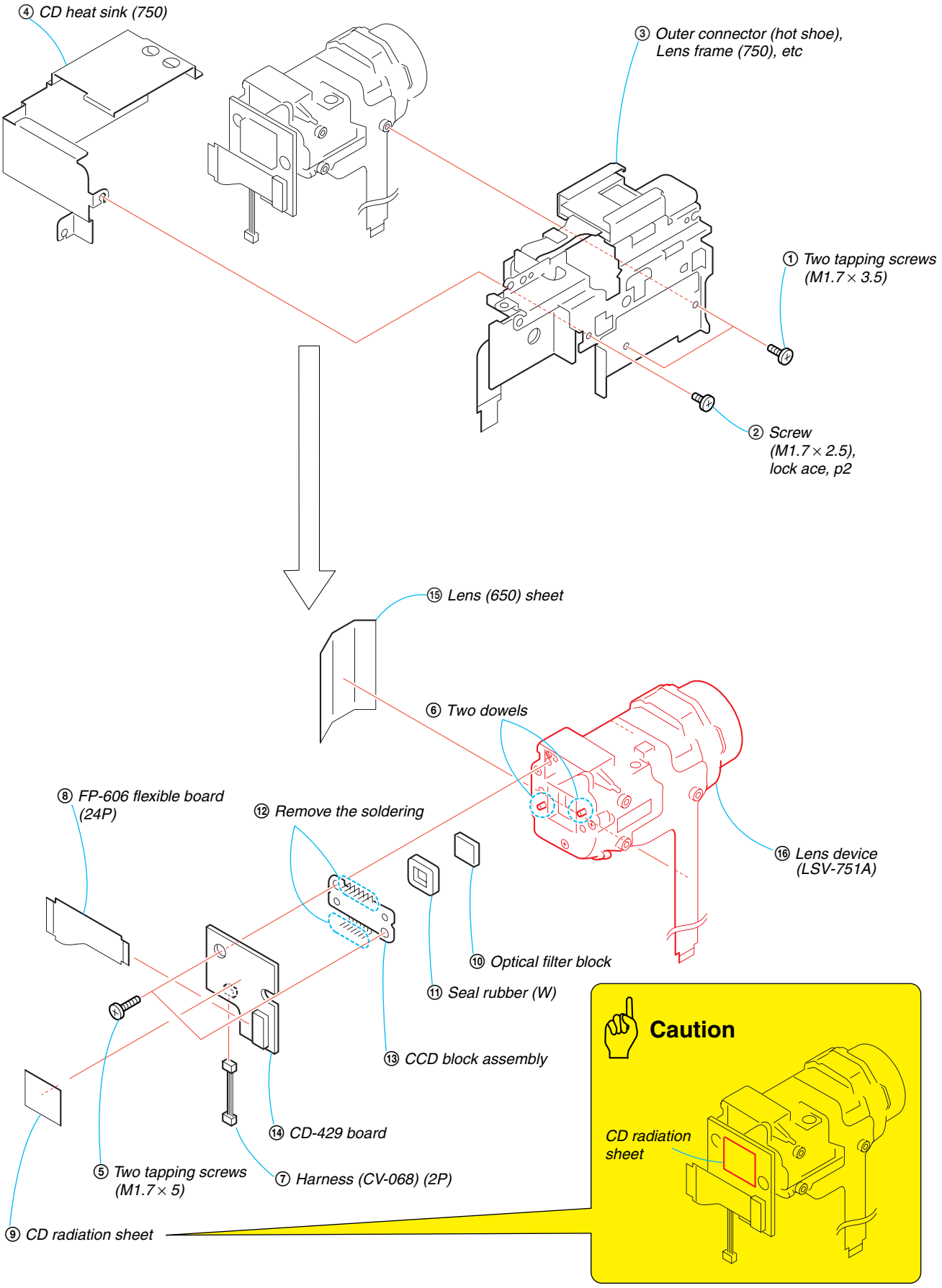
2-30. LB-084 BOARD (REMOVING OF THE EVF)-3


① Two screws (M1.7 × 2.5), lock ace, p2
② Pull out the VF slide assembly fully in the direction of the arrow.
VF slide Cabinet (upper) assembly
VF slide assembly, etc.
Ⓐ
Ⓑ
③ Slide the VF slide cabinet assembly and others once to the deep end, then slant them in the direction of the arrow Ⓐ to release the claw portion of the VF slide assembly and finally pull them out in the direction of the arrow Ⓑ and remove them.
⑥ Remove the LCD cabinet assembly and others from the two dowels and cut-outs of the VF slide assembly.
⑤ Screw (M1.7 × 2.5), lock ace, p2
VF slide assembly
④ Screw (M1.7 × 2.5), lock ace, p2
Cut-outs
Two dowels
Caution
When attach the Sheet (VF), fold the FP-603 flexible board as shown in the illustration.
Sheet (VF)
FP-603 flexible board
Caution
Be careful not to drop the Prism sheet (40) and the Illuminator (40).
⑫ Lamp guide (40)
⑰ LCX032AN-5 (16P)
⑦ Sheet (VF)
⑪ Cushion LB (40)
⑩ Two craws
⑯ LCD cabinet assembly
⑧ FP-603 flexible board
⑮ LCX032AN-5
⑭ Prism sheet (40)
⑨ Two craws
⑬ Illuminator (40)
Caution
Be careful not to drop the Cushion LB (40).
Projected part
⑱ LB-084 board

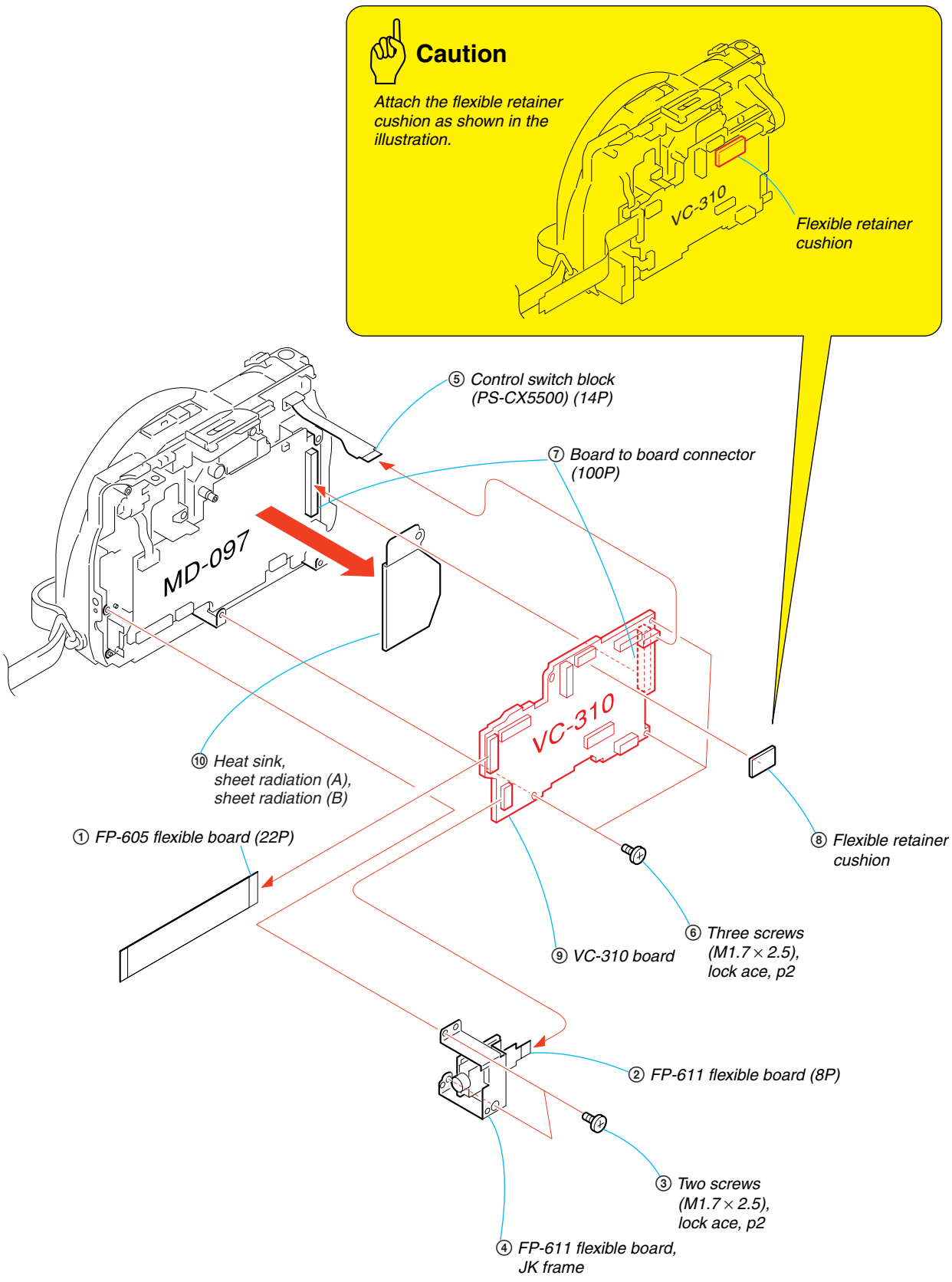
2-31. LENS SECTION


① Screw (M1.7 × 4), lock ace, p2 (black)
⑩ Water packing
⑨ Lens section
VC-310
Tapping screw (M1.7 × 3.5)
Screw (M1.7 × 4), lock ace, p2 (black)
⑧ Two screws (M1.7 × 4), lock ace, p2 (black)
⑥ CD heat transe holder
⑦ Two tapping screws (M1.7 × 3.5)
② Lens device (27P)
③ FP-606 flexible board (27P)
④ FP-604 flexible board (10P) (DVD200)
FP-868 flexible board (10P) (DVD200E/DVD300)
VC-310
⑤ Harness (CV-068) (2P)

2-32. LENS DEVICE (LSV-751A)


④ CD heat sink (750)
③ Outer connector (hot shoe), Lens frame (750), etc
① Two tapping screws (M1.7 × 3.5)
② Screw (M1.7 × 2.5), lock ace, p2
⑮ Lens (650) sheet
⑥ Two dowels
⑧ FP-606 flexible board (24P)
⑫ Remove the soldering
⑯ Lens device (LSV-751A)
⑩ Optical filter block
⑪ Seal rubber (W)
⑬ CCD block assembly
⑭ CD-429 board
⑤ Two tapping screws (M1.7 × 5)
⑦ Harness (CV-068) (2P)
⑨ CD radiation sheet
Caution
CD radiation sheet

2-33. VC-310 BOARD


Caution
Attach the flexible retainer cushion as shown in the illustration.
VC-310
Flexible retainer cushion
⑤ Control switch block (PS-CX5500) (14P)
⑦ Board to board connector (100P)
MD-097
VC-310
⑩ Heat sink, sheet radiation (A), sheet radiation (B)
① FP-605 flexible board (22P)
⑧ Flexible retainer cushion
⑨ VC-310 board
⑥ Three screws (M1.7 × 2.5), lock ace, p2
② FP-611 flexible board (8P)
③ Two screws (M1.7 × 2.5), lock ace, p2
④ FP-611 flexible board, JK frame

[SERVICE POSITION TO CHECK THE DVD DRIVE SECTION]

Connection to Check the VTR Section

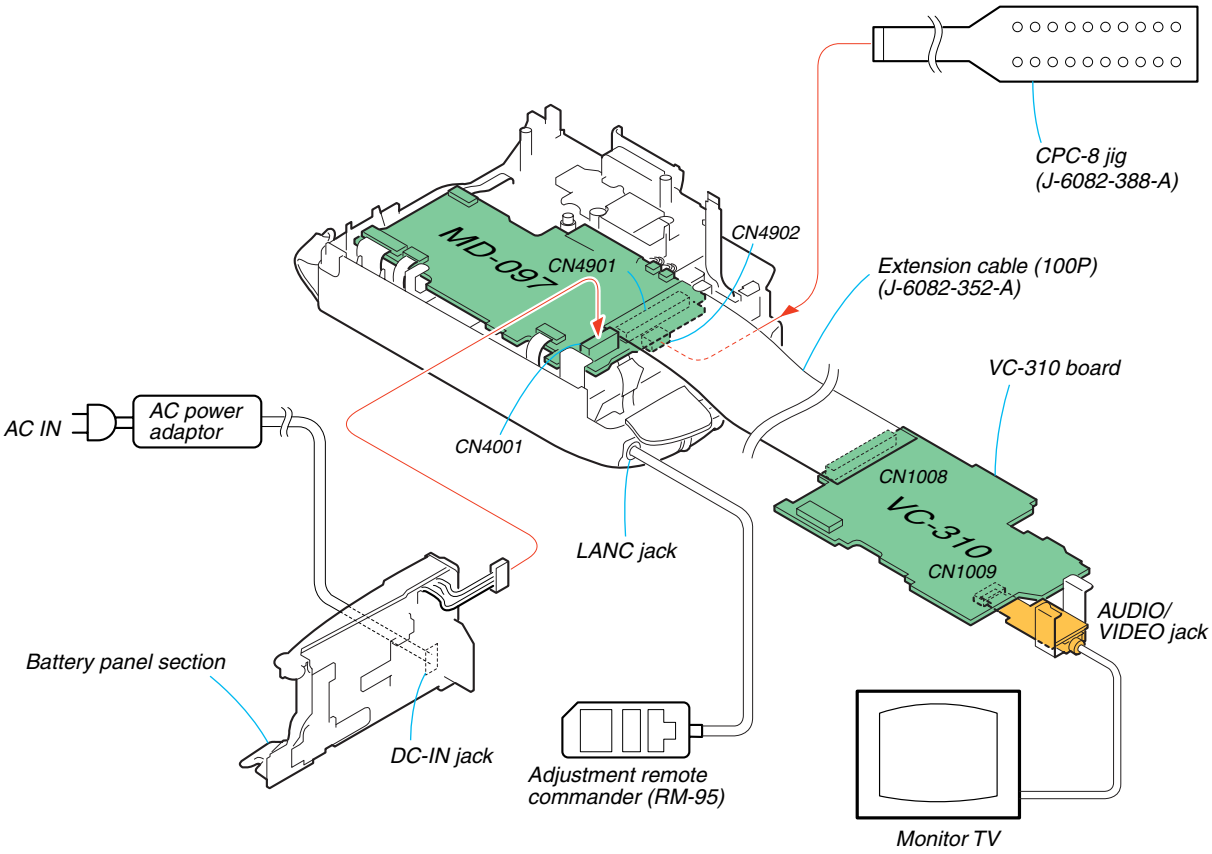
To check the DVD drive section, set the DVD drive to forced PLAY mode.
Operate the DVD drive using the adjustment remote commander (with the HOLD switch set in the OFF position).

Setting the forced PLAY mode

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 0, address: 10, and set data: 00.
3) Select page: D, address: 10, set data: 02, and press the PAUSE button of the adjustment remote commander.

Exiting the forced PLAY mode

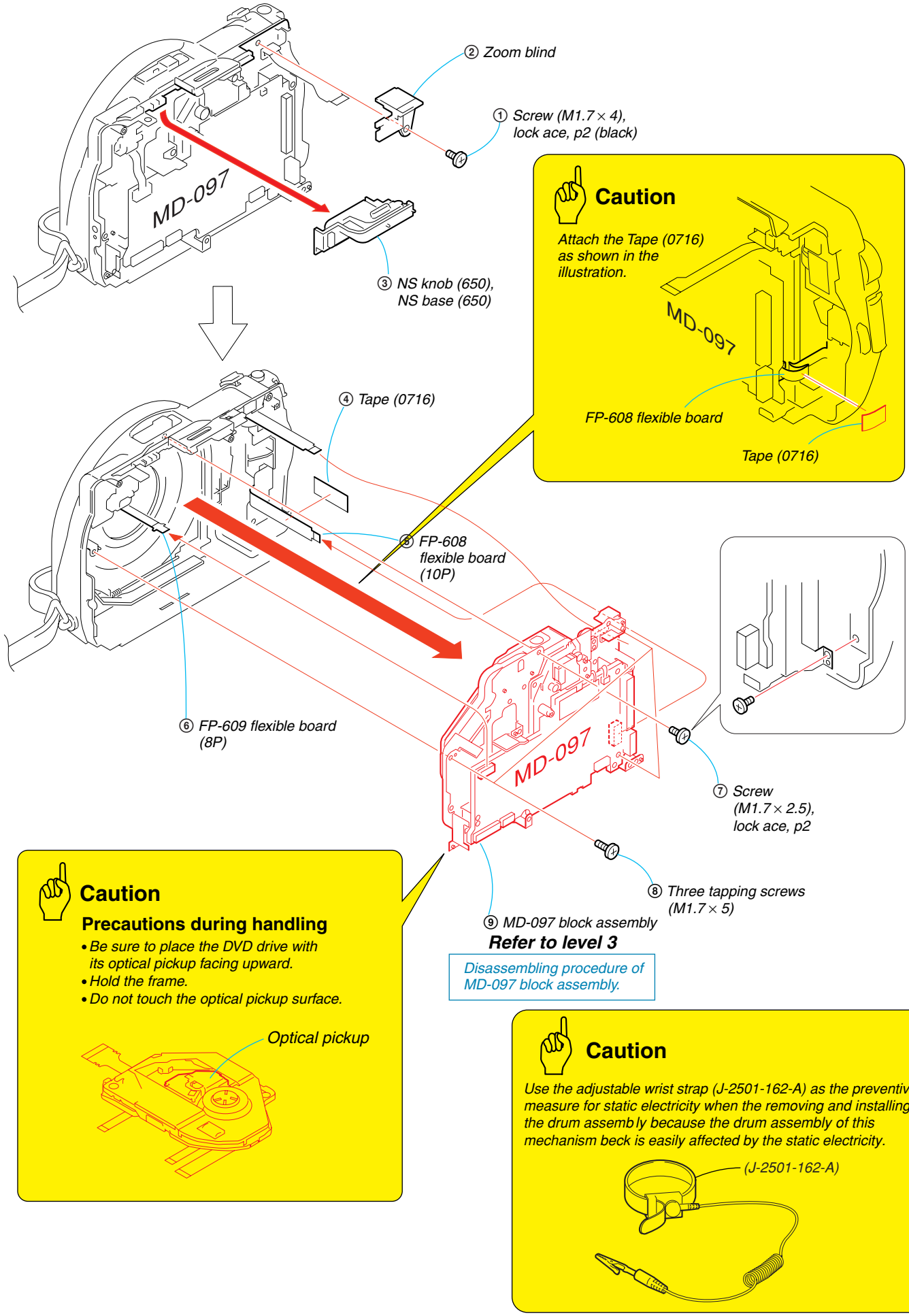
1) Select page: 0, address: 01, and set data: 01.
2) Select page: 0, address: 10, and set data: 00.
3) Select page: D, address: 10, set data: 00, and press the PAUSE button of the adjustment remote commander.
4) Select page: 0, address: 01, and set data: 00.



PROCEDURE OF REMOVING THE VC-310 BOARD.
(SERVICE POSITION) TO CHECK THE DVD DRIVE SECTION)

① 2-2. F PANEL SECTION ..... (page 2-3)
② 2-4. CABINET (R) SECTION ..... (page 2-4)
③ 2-26. BATTERY PANEL SECTION..... (page 2-16)
④ 2-27. EVF SECTION..... (page 2-17)
⑤ 2-31. LENS SECTION..... (page 2-21)
⑥ 2-33. VC-310 BOARD..... (page 2-23)

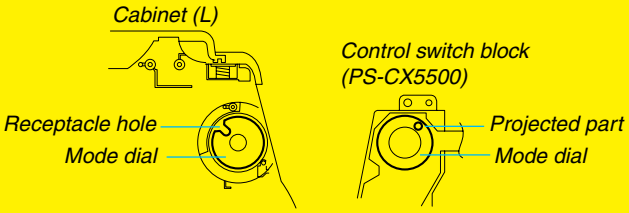
2-34. MD-097 BLOCK ASSEMBLY


② Zoom blind
① Screw (M1.7 × 4), lock ace, p2 (black)
MD-097
③ NS knob (650), NS base (650)
④ Tape (0716)
⑤ FP-608 flexible board (10P)
⑥ FP-609 flexible board (8P)
MD-097
⑦ Screw (M1.7 × 2.5), lock ace, p2
⑧ Three tapping screws (M1.7 × 5)
⑨ MD-097 block assembly
Refer to level 3
Disassembling procedure of MD-097 block assembly.
Caution
Attach the Tape (0716) as shown in the illustration.
MD-097
FP-608 flexible board
Tape (0716)
Caution
Precautions during handling
• Be sure to place the DVD drive with its optical pickup facing upward.
• Hold the frame.
• Do not touch the optical pickup surface.
Optical pickup
Caution
Use the adjustable wrist strap (J-2501-162-A) as the preventive measure for static electricity when the removing and installing the drum assembly because the drum assembly of this mechanism beck is easily affected by the static electricity.
(J-2501-162-A)

2-35. CONTROL SWITCH BLOCK (PS-CX5500)

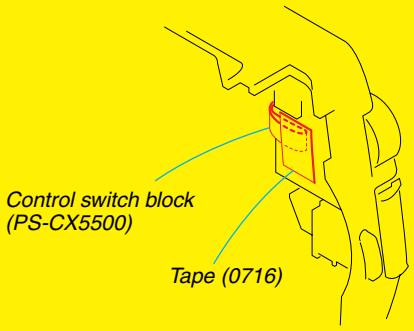
Caution

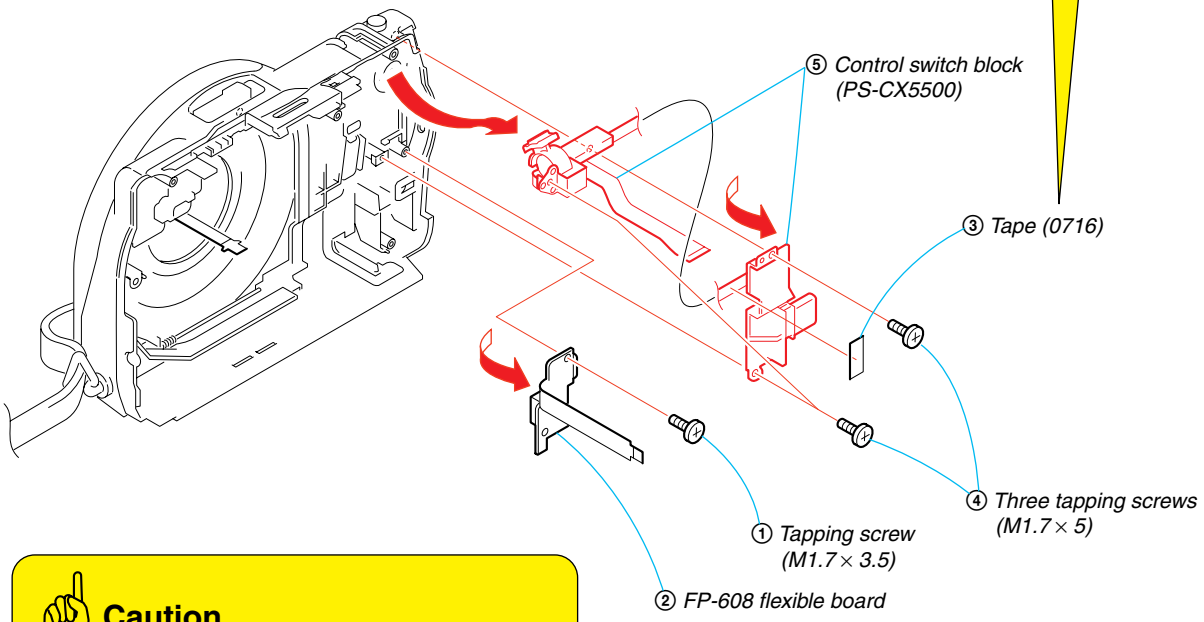
Align the hole of the receptacle with the projection of the projected part, and install the Control switch block (PS-CX5500).



Caution

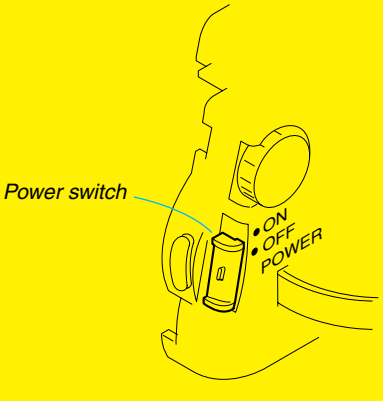
Attach the Tape (0716) as shown in the illustration.



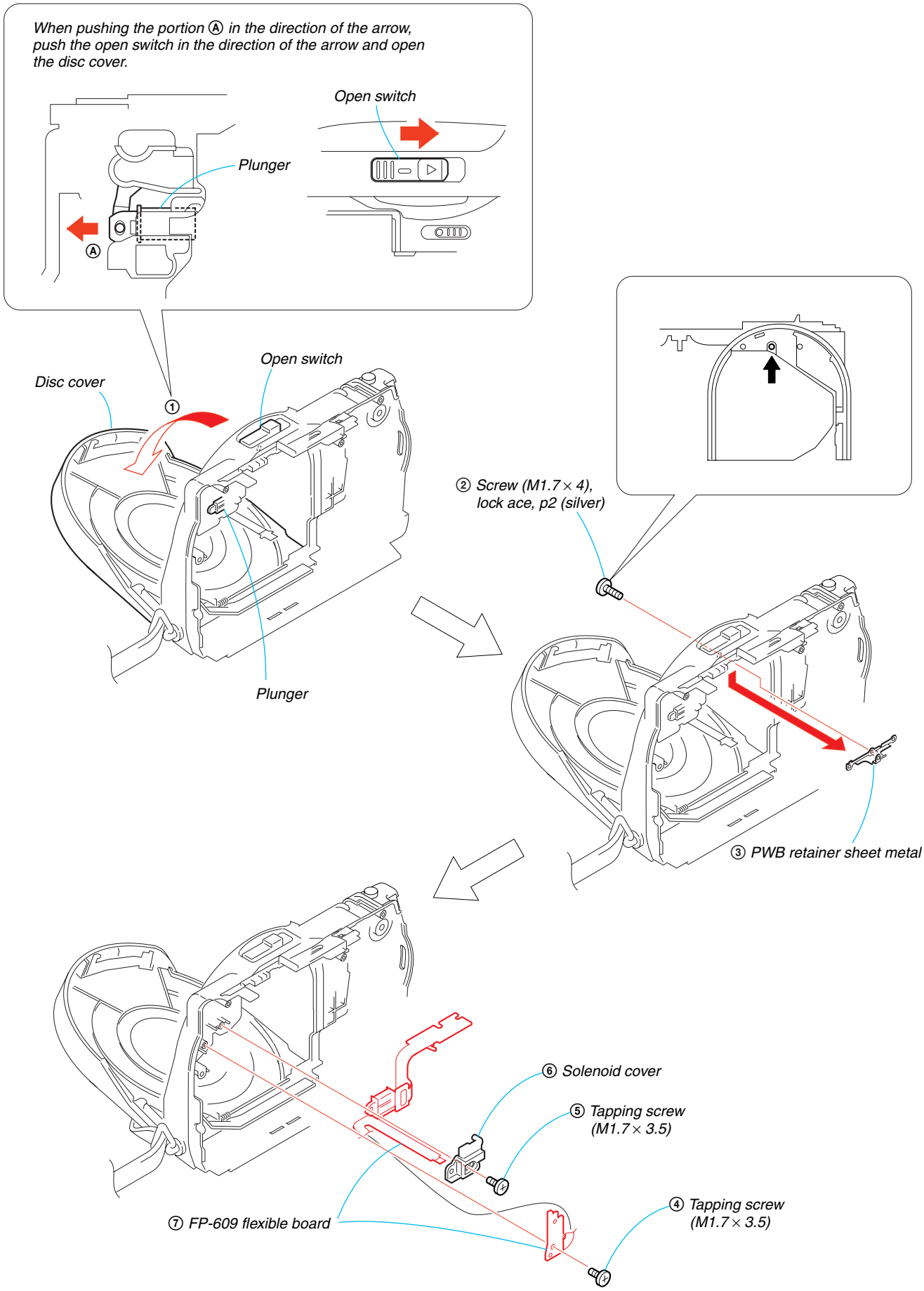


Caution

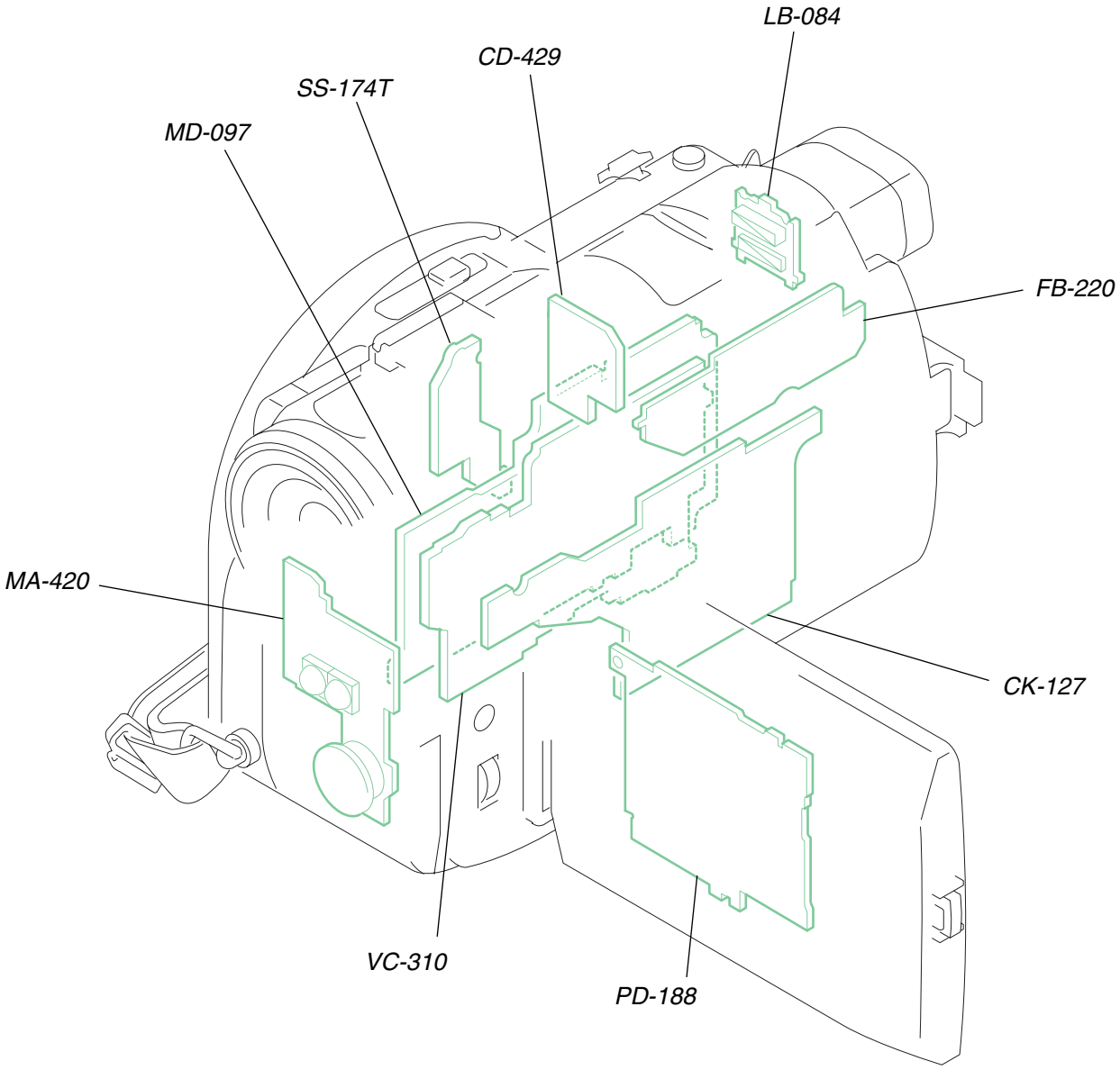
When installing the Control switch block (PS-CX5500), make the power switch of cabinet (L) section into the position of OFF.



2-36. FP-609 FLEXIBLE BOARD

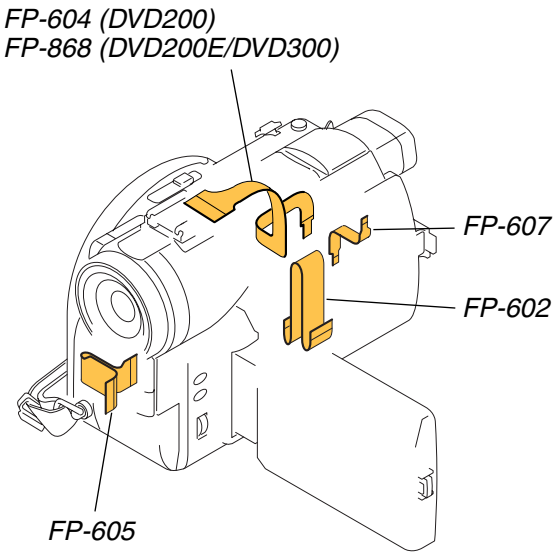

When pushing the portion Ⓐ in the direction of the arrow, push the open switch in the direction of the arrow and open the disc cover.
Open switch
Plunger
Ⓐ
Disc cover
Open switch
①
Plunger
② Screw (M1.7 × 4), lock ace, p2 (silver)
③ PWB retainer sheet metal
⑥ Solenoid cover
⑤ Tapping screw (M1.7 × 3.5)
⑦ FP-609 flexible board
④ Tapping screw (M1.7 × 3.5)

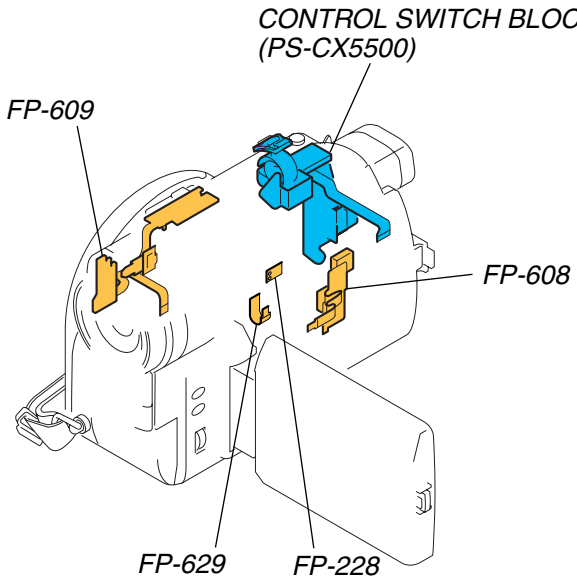
2-37. CIRCUIT BOARDS LOCATION

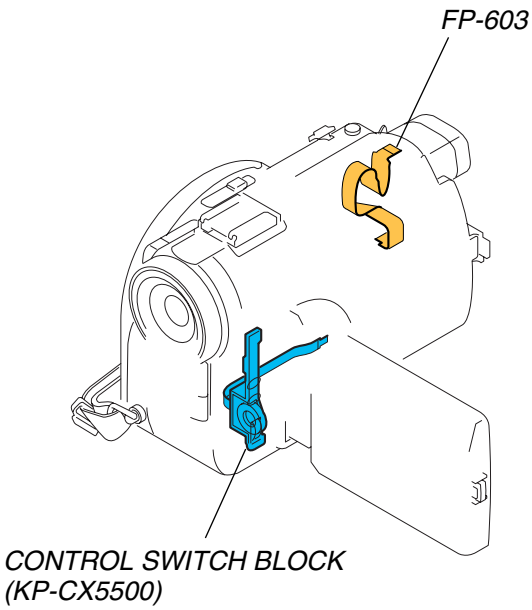


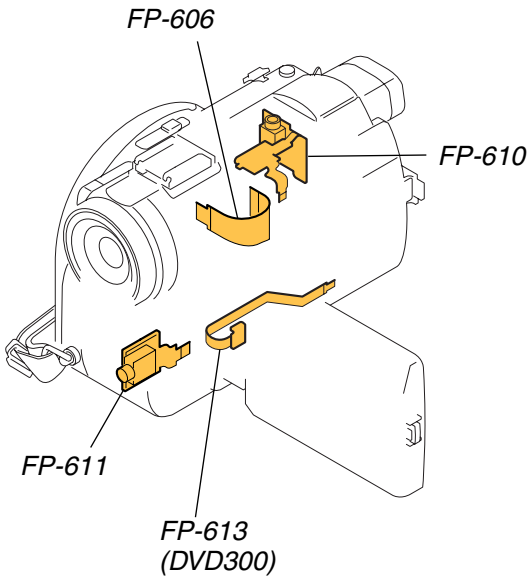
NAME	FUNCTION
CD-429	CCD IMAGER
CK-127	CONNECTOR, FUNCTION SWITCH
FB-220	FUNCTION SWITCH
LB-084	EVF CONNECTOR, EVF BACK LIGHT
MA-420	PITCH/YAW SENSOR, REMOTE SENSOR, MIC
MD-097	RF SKEW SENSOR, DVD DSP, MECHA DRIVE, UCON, FLASH, LATCH, USB I/F, CONNECTOR, DC/DC CONVERTER
PD-188	LCD DRIVE, BACK LIGHT DRIVE
SS-174T	TSB SHOCK SENSOR
VC-310	DC/DC CONVERTER, A/D CONVERTER, TIMING GENERATOR, EVR, CAMERA PROCESS, LENS DRIVE, DVD SYSTEM CONTROL, 128M SDRAM, 16M FCRAM, DVD CODEC, 64M SDRAM, VIDEO IN/OUT, VIDEO A/D CONVERTER, EVF DRIVE, CAMERA CONTROL, HI CONTROL, HI/DIGITAL STILL CONTROL, 32M FLASH MEMORY, AUDIO I/O, MIC AMP, PITCH/YAW SENSOR AMP, CONNECTOR, DD CONNECTOR

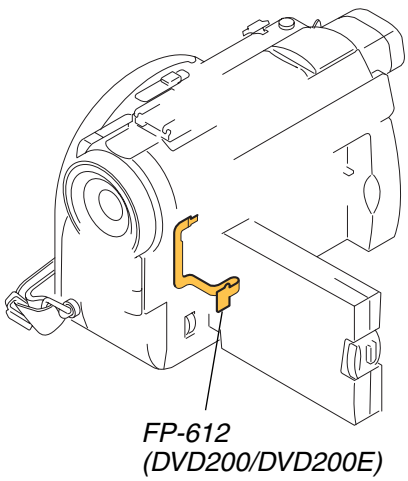
2-38. FLEXIBLE BOARDS LOCATION











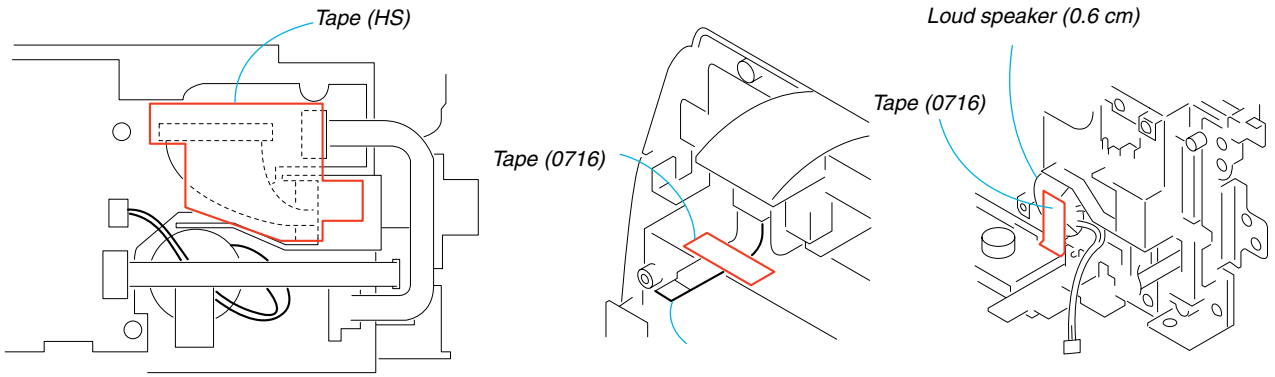
Disassembling procedure of MD-097 block assembly are not shown. Pages from 2-30 to 2-32 are not shown.

2003.08.28

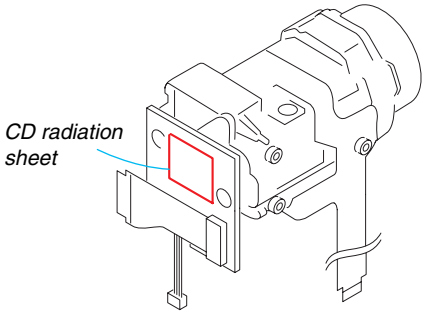
HELP

Sheet attachment positions and procedures of processing the flexible boards/harnesses are shown.

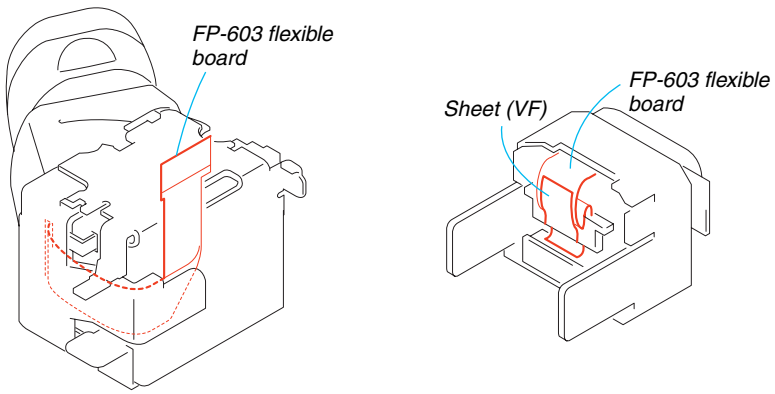
CABINET (R) SECTION (DVD200)



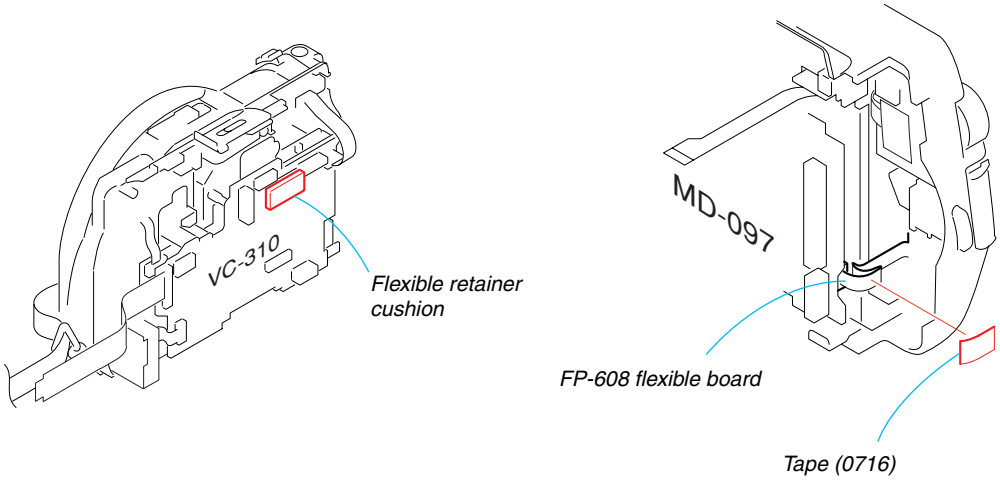
LENS SECTION



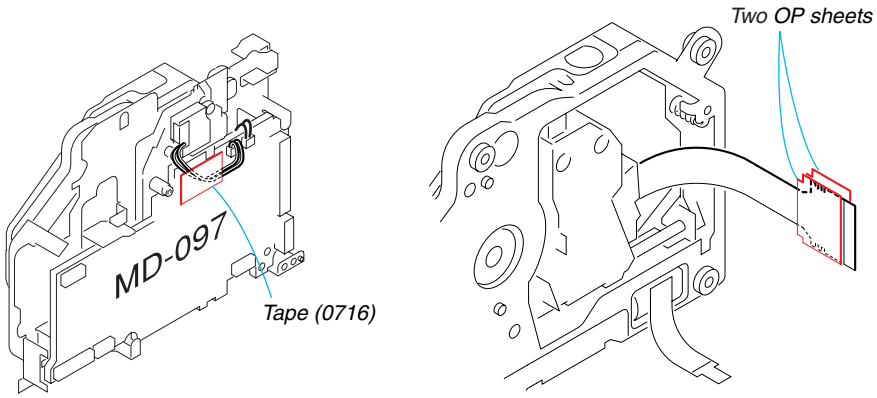
EVF SECTION



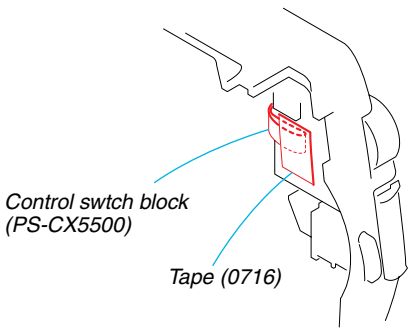
OVERALL



MD SECTION



CABINET (L) SECTION



HELP

COVER

3. BLOCK DIAGRAMS

Link

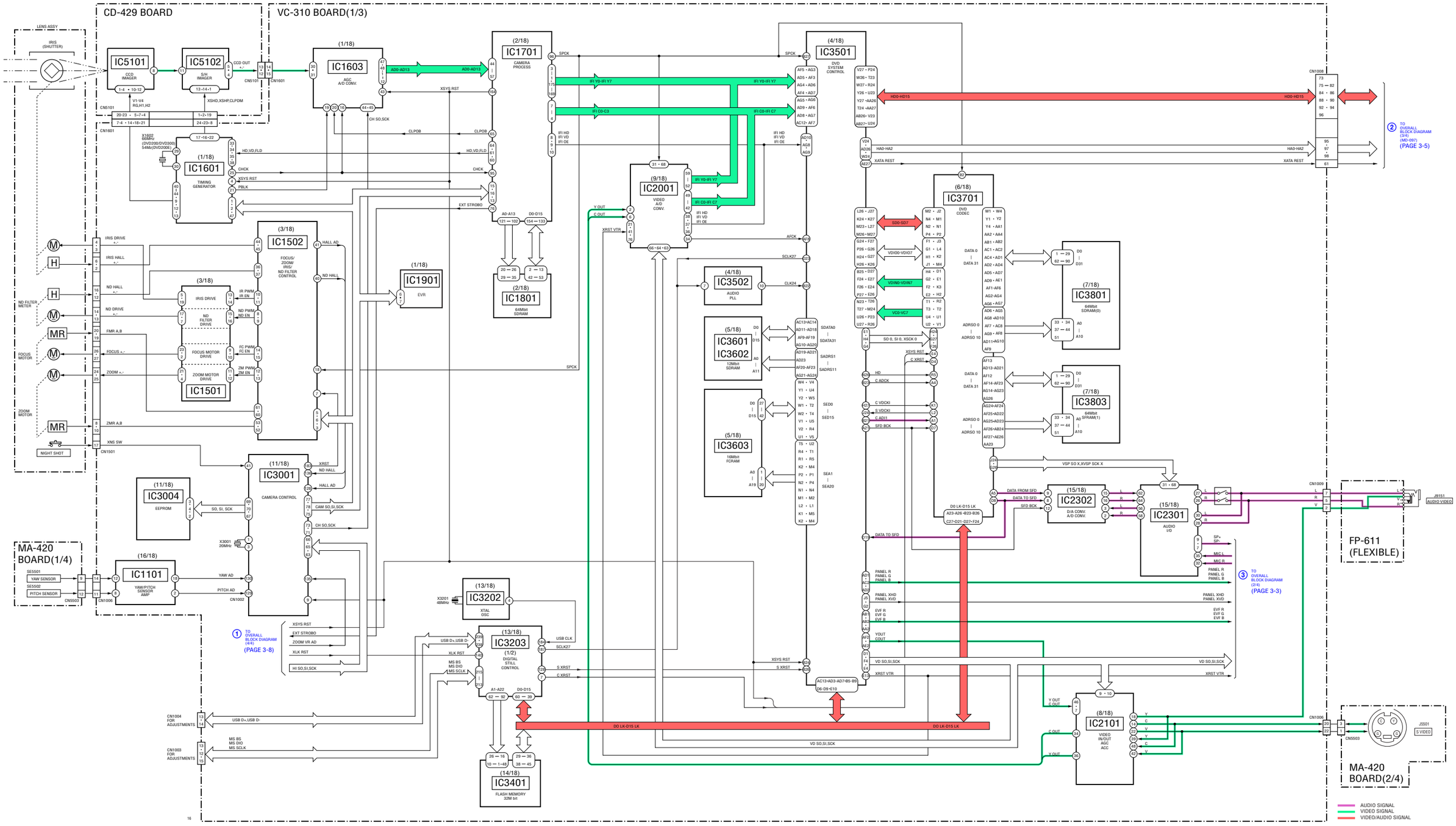
- OVERALL BLOCK DIAGRAM (1/4)
- OVERALL BLOCK DIAGRAM (2/4)
- OVERALL BLOCK DIAGRAM (3/4)
- OVERALL BLOCK DIAGRAM (4/4)
- POWER BLOCK DIAGRAM (1/3)
- POWER BLOCK DIAGRAM (2/3)
- POWER BLOCK DIAGRAM (3/3)

COVER

SECTION 3
BLOCK DIAGRAMS

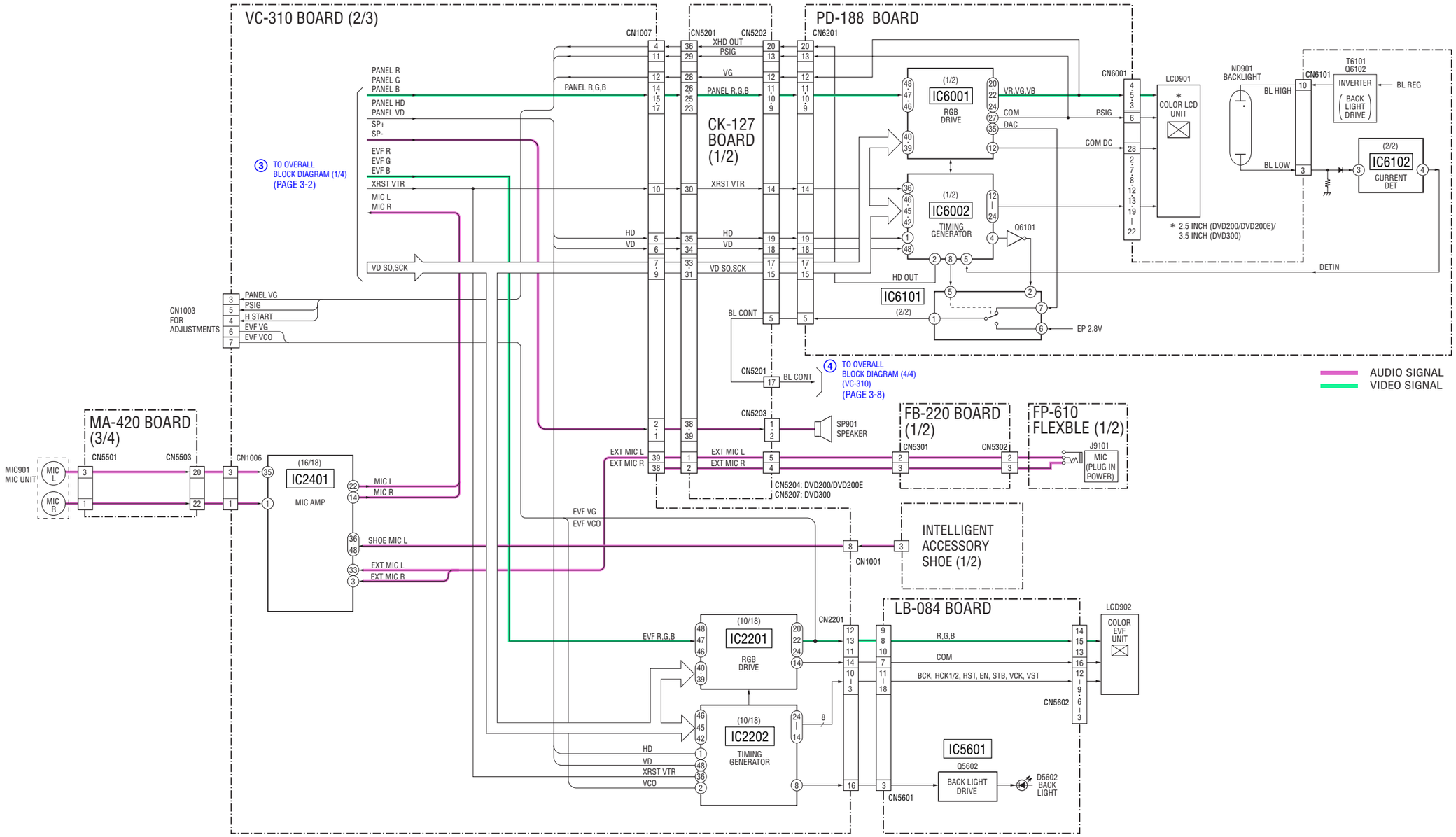
3-1. OVERALL BLOCK DIAGRAM (1/4)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



3-2. OVERALL BLOCK DIAGRAM (2/4)

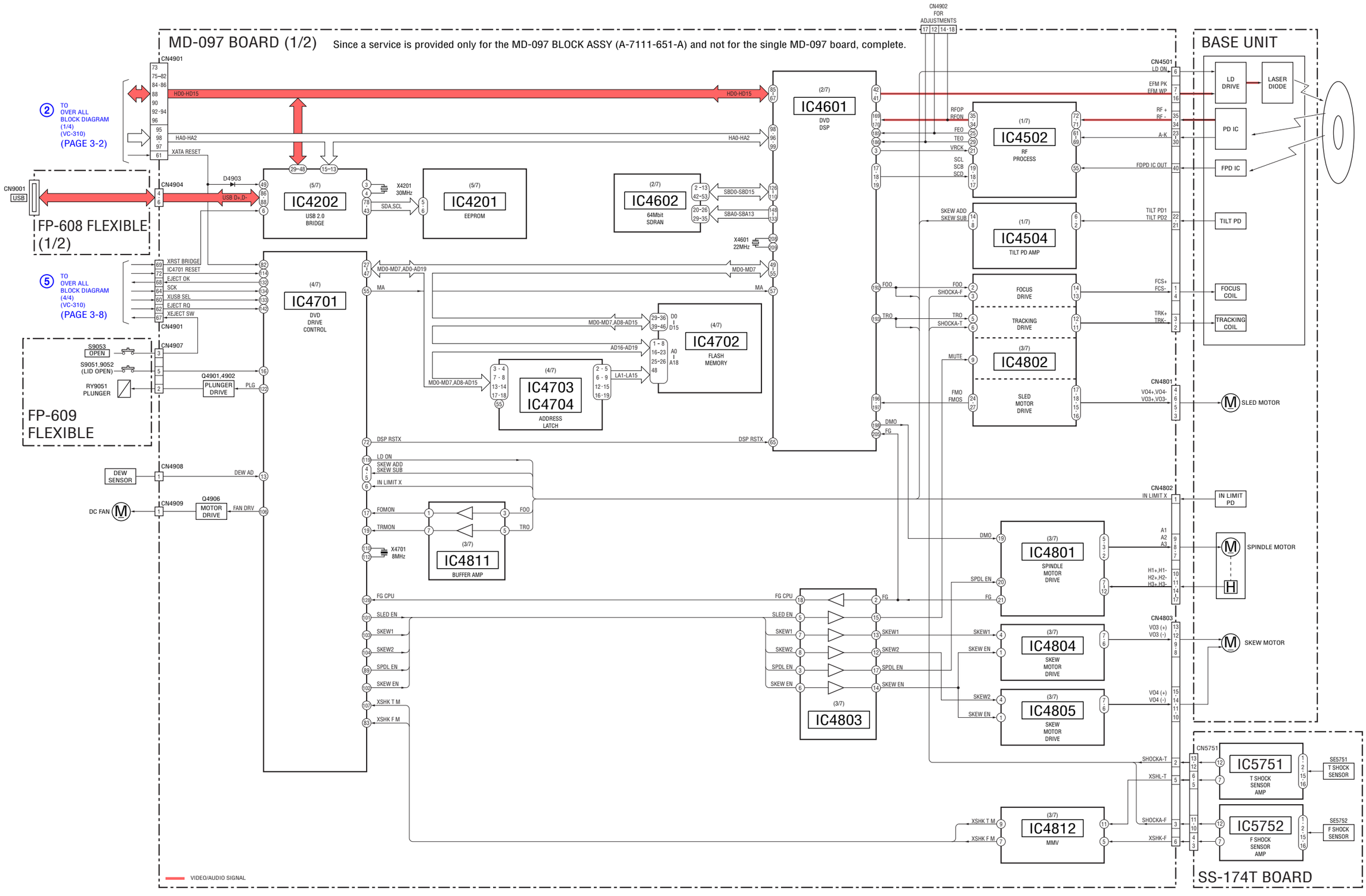
( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



COVER

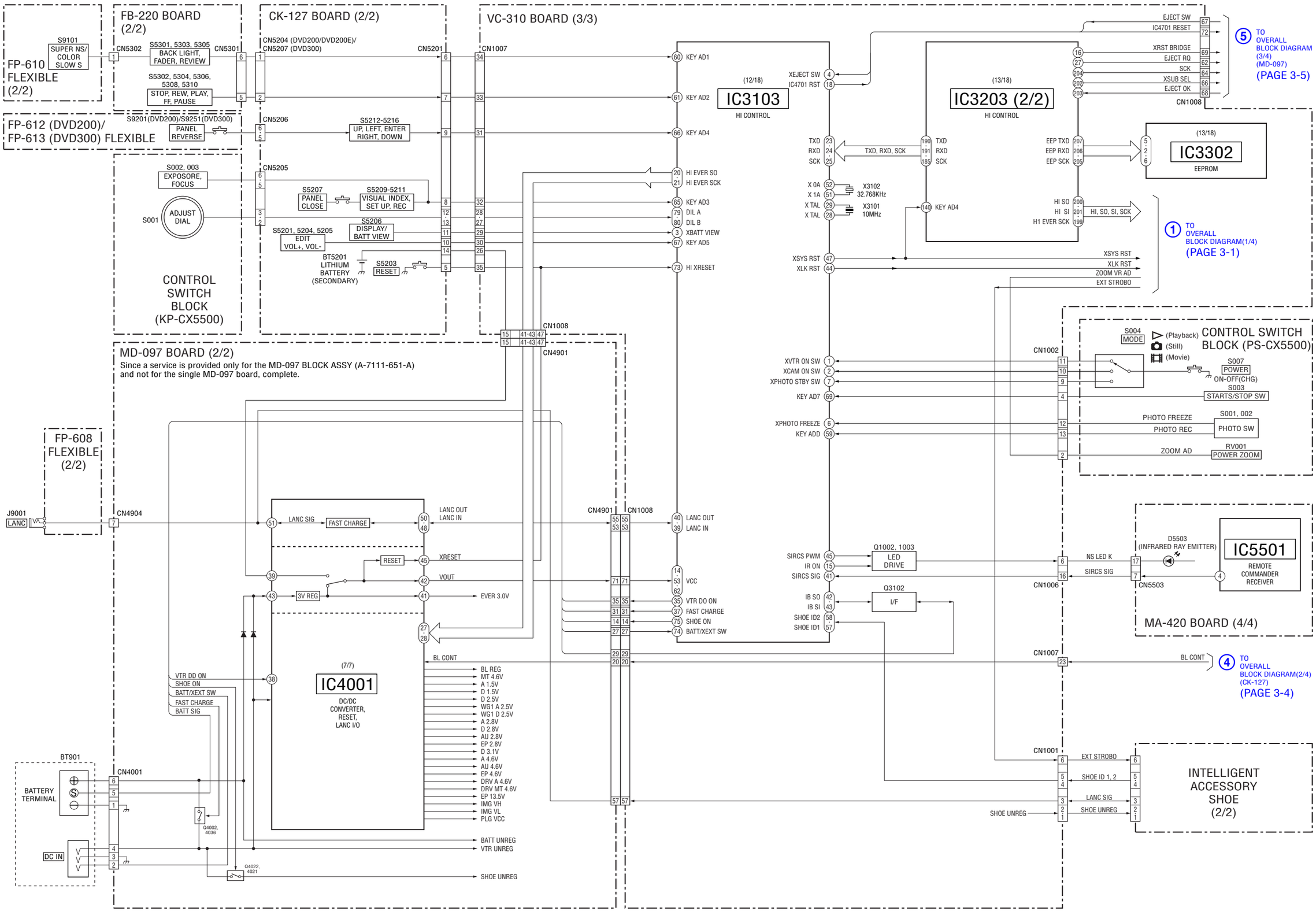
3-3. OVERALL BLOCK DIAGRAM (3/4)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



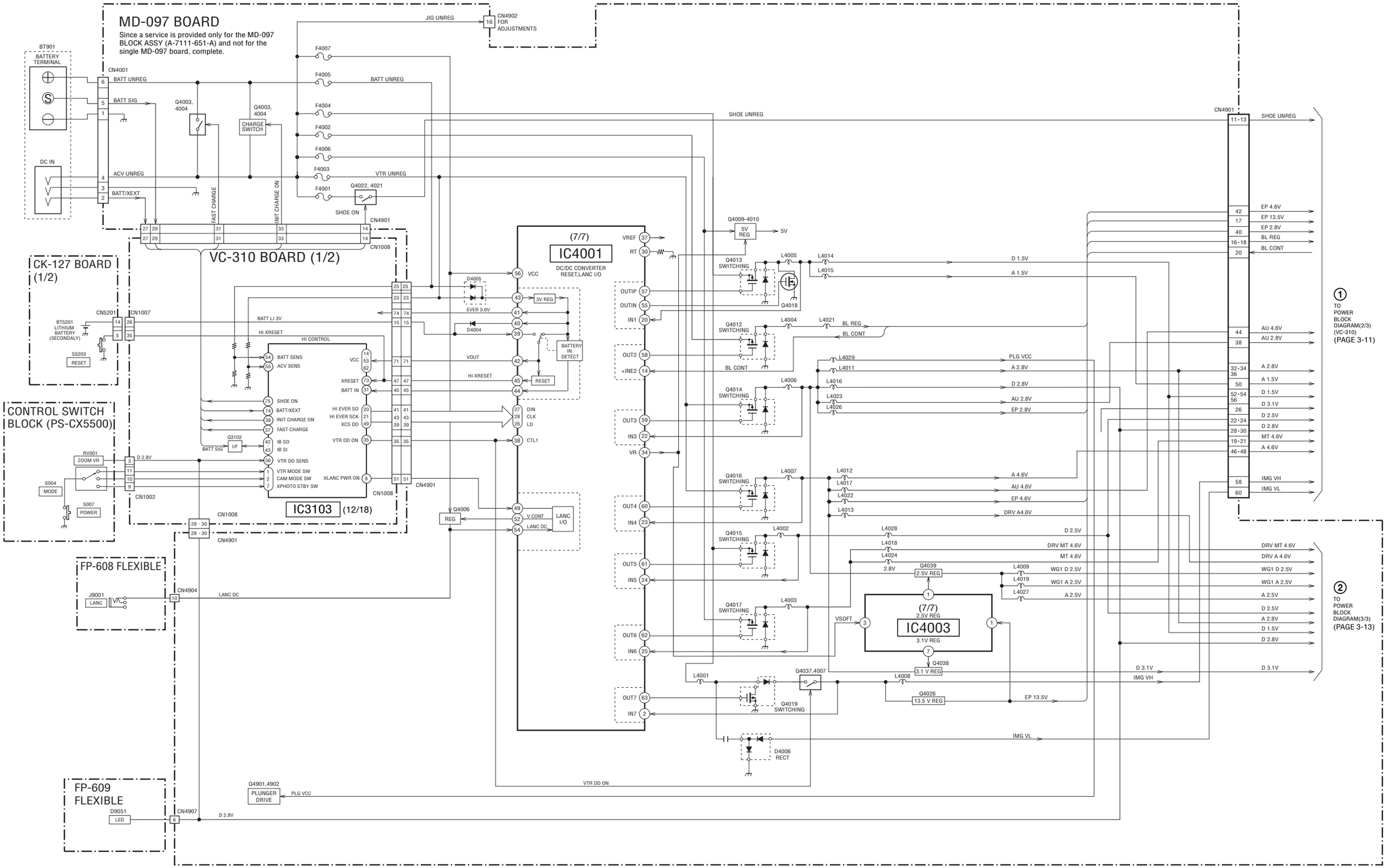
3-4. OVERALL BLOCK DIAGRAM (4/4)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



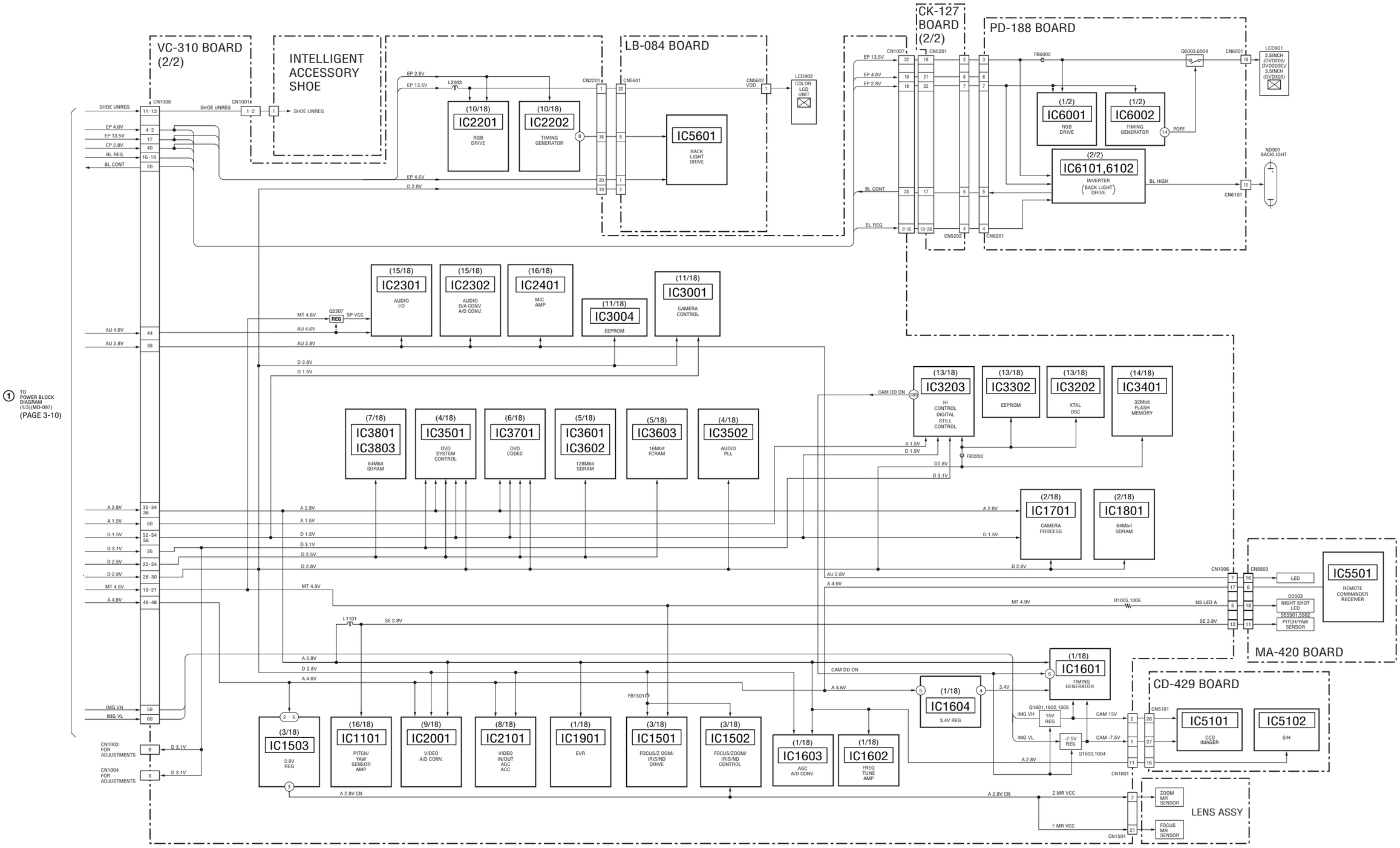
3-5. POWER BLOCK DIAGRAM (1/3)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



3-6. POWER BLOCK DIAGRAM (2/3)

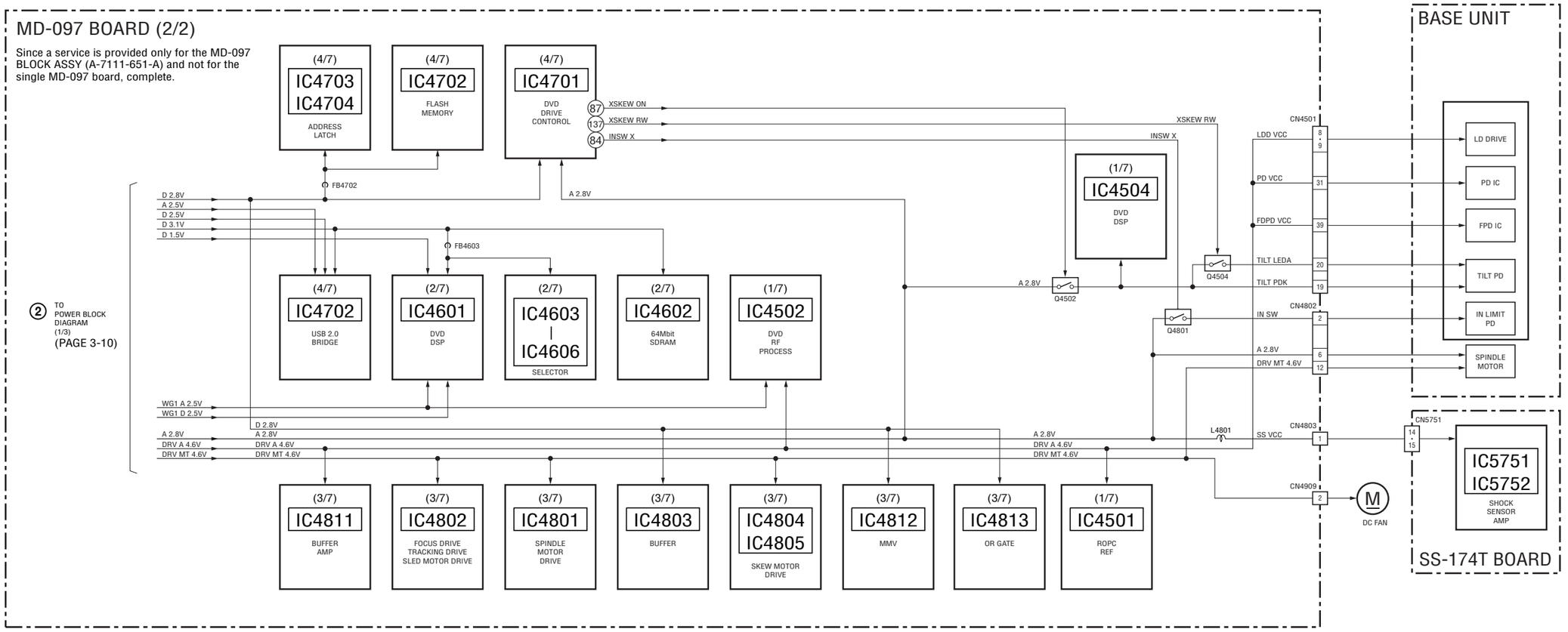
( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



COVER

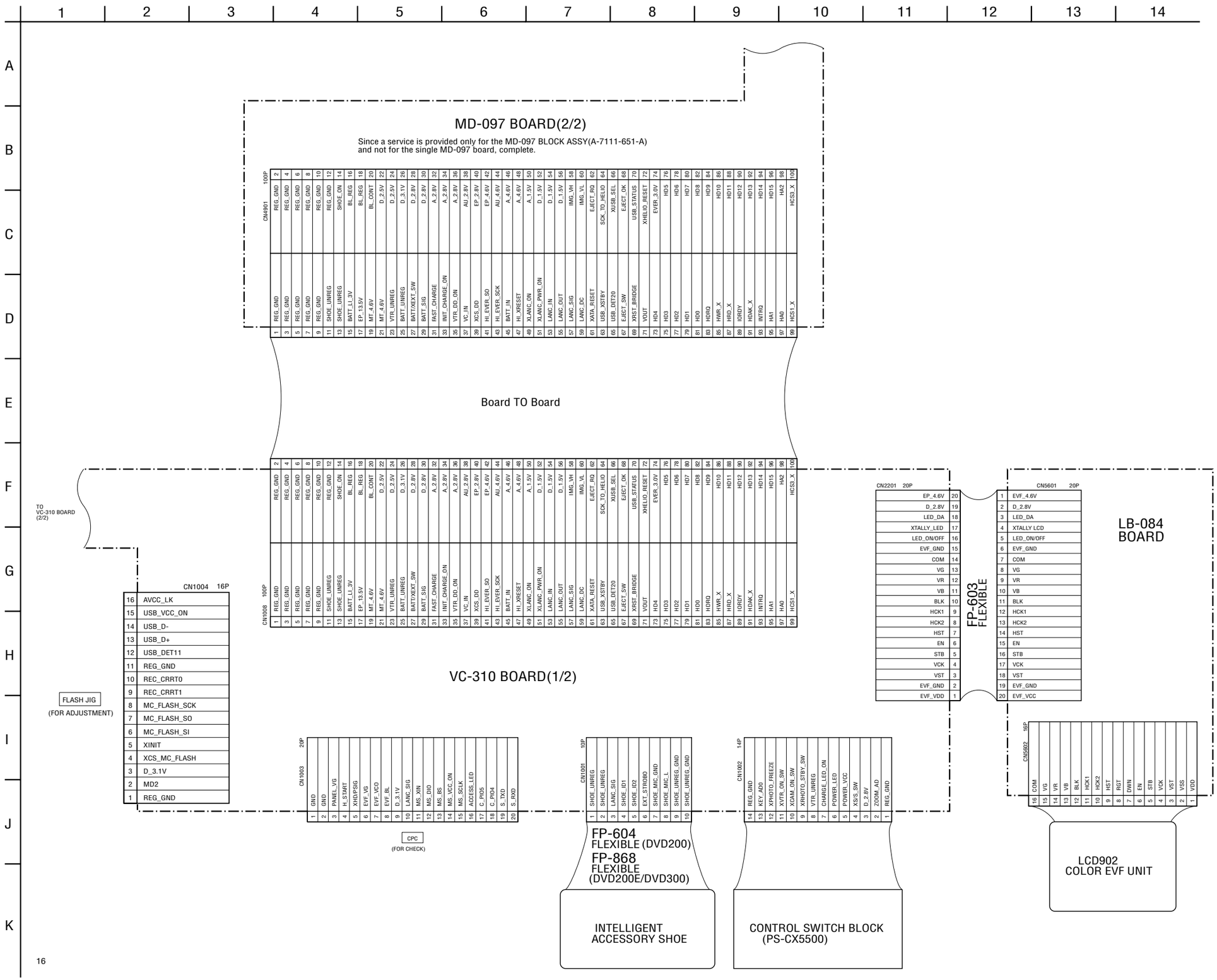
3-7. POWER BLOCK DIAGRAM (3/3)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.

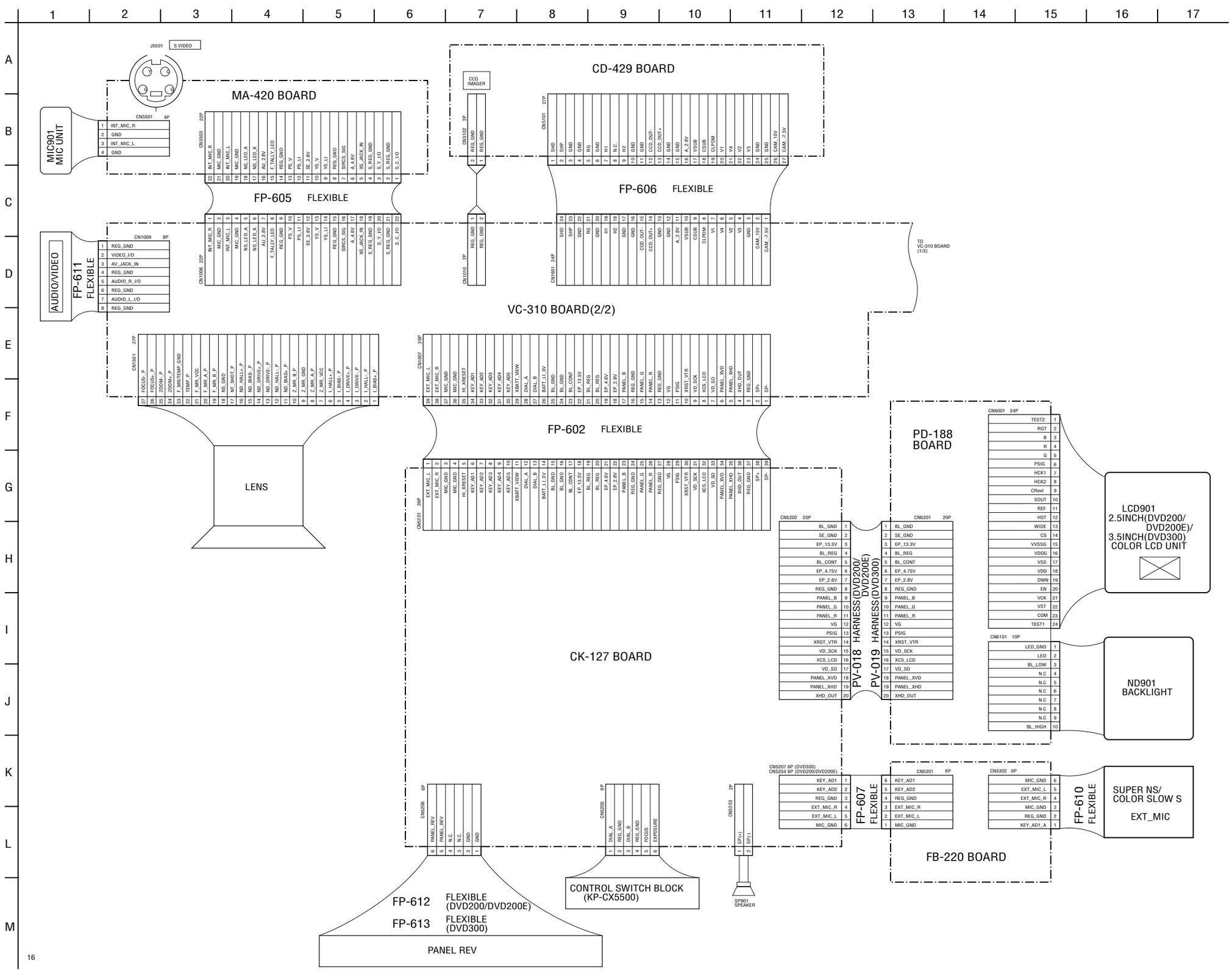


SECTION 4
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

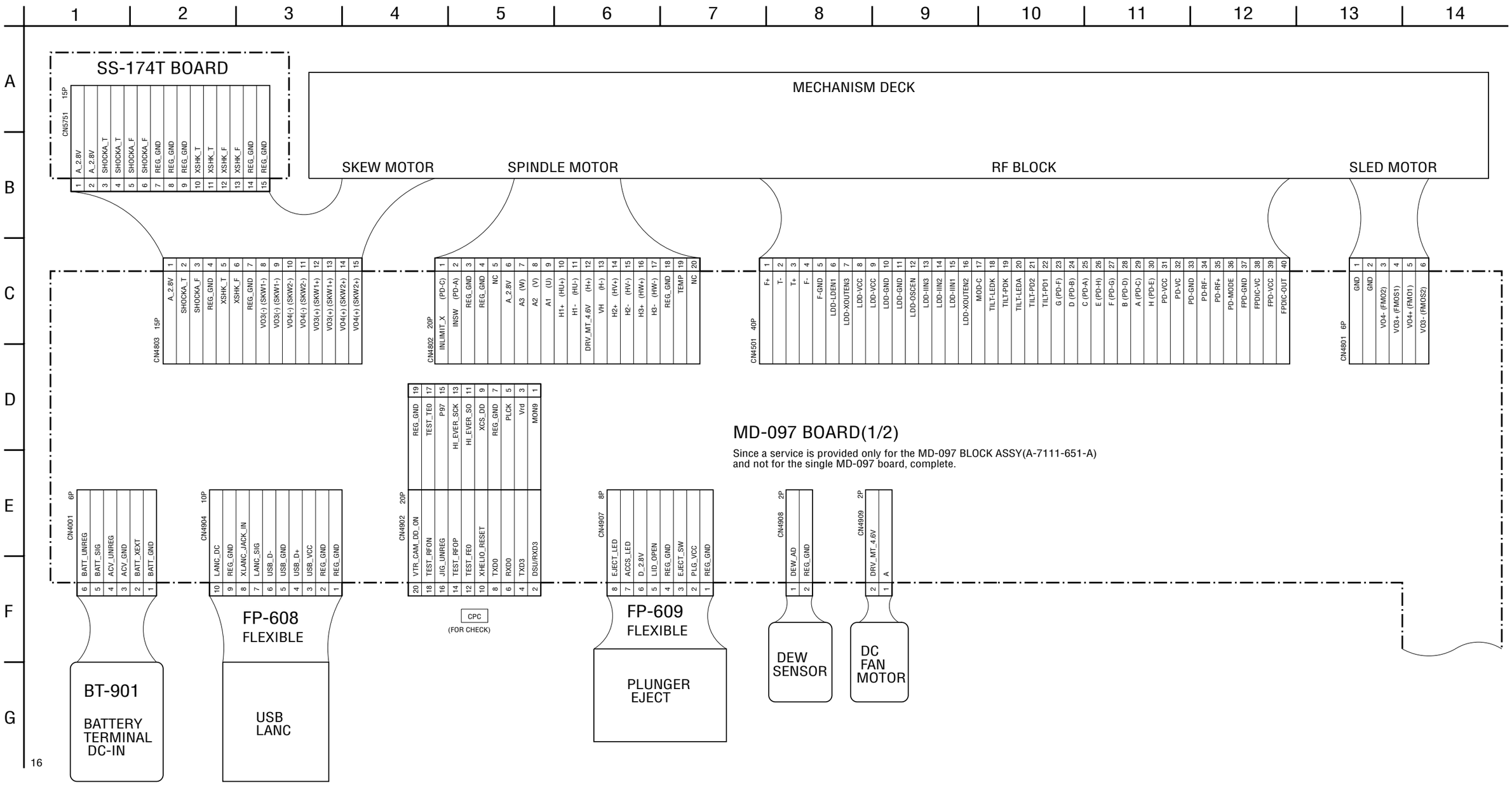
4-1. FRAME SCHEMATIC DIAGRAM (1/3)



FRAME SCHEMATIC DIAGRAM (2/3)



FRAME SCHEMATIC DIAGRAM (3/3)



COVER

4-2. SCHEMATIC DIAGRAMS

Link

- CD-429 BOARD (CCD IMAGER)
- CK-127 BOARD (CONNECTOR, FUNCTION SWITCH)
- FP-609 FLEXIBLE
- FB-220 BOARD (FUNCTION SWITCH)
- PD-188 BOARD (1/2) (LCD DRIVE)
- FP-610 FLEXIBLE (EXT MIC)
- PD-188 BOARD (2/2) (BACKLIGHT DRIVE)
- CONTROL SWITCH BLOCK (KP-CX5500)
- LB-084 BOARD (EVF CONNECTOR, EVF BACK LIGHT)
- CONTROL SWITCH BLOCK (PS-CX5500)
- FP-608 FLEXIBLE (USB, LANC)
- FP-611 FLEXIBLE (AUDIO/VIDEO JACK)
- MA-420 BOARD (PITCH/YAW SENSOR, REMOTE SEONSOR, MIC)

- COMMON NOTE FOR SCHEMATIC DIAGRAMS
- WAVEFORMS

COVER

4-2. SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR SCHEMATIC DIAGRAMS
(In addition to this, the necessary note is printed in each block)

(For schematic diagrams)

- All capacitors are in μF unless otherwise noted. pF : μμF. 50 V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10 W unless otherwise noted. kΩ=1000 Ω, MΩ=1000 kΩ.
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.

Example

C541	L452
22U	10UH
TA A	2520

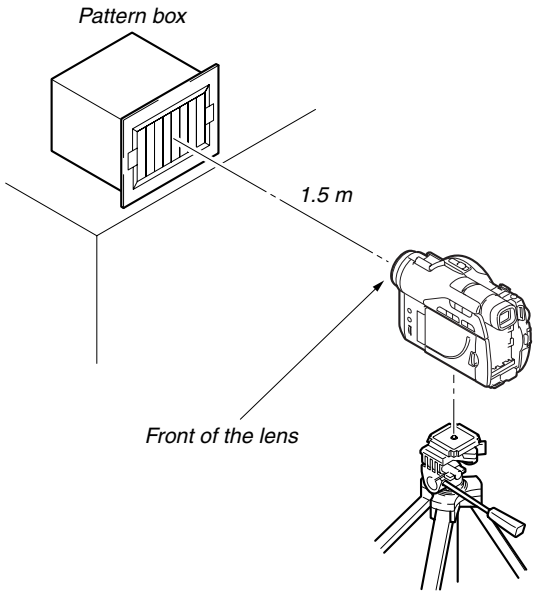
Kinds of capacitor
Temperature characteristics
External dimensions (mm)

- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used.
  In such cases, the unused circuits may be indicated.
- Parts with * differ according to the model/destination.
  Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name
  XEDIT → $\overline{\text{EDIT}}$ PB/XREC → PB/$\overline{\text{REC}}$
- : non flammable resistor
- : fusible resistor
- : panel designation
- : B+ Line
- : B– Line
- : IN/OUT direction of (+,–) B LINE.
- : adjustment for repair.
- : VIDEO SIGNAL (ANALOG)
- : AUDIO SIGNAL (ANALOG)
- : VIDEO/AUDIO SIGNAL
- : VIDEO/AUDIO/SERVO SIGNAL
- : SERVO SIGNAL
- Circled numbers refer to waveforms.

(Measuring conditions voltage and waveform)

- Voltages and waveforms are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values and reference waveforms.
  (VOM of DC 10 MΩ input impedance is used)
- Voltage values change depending upon input impedance of VOM used.)

1. Connection



2. Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

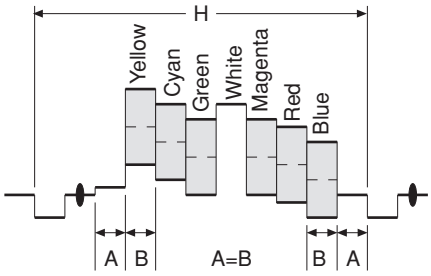


Fig. a (Video output terminal output waveform)

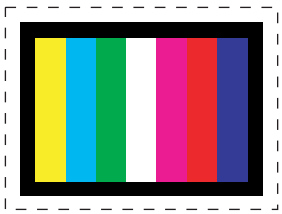


Fig.b (Picture on monitor TV)

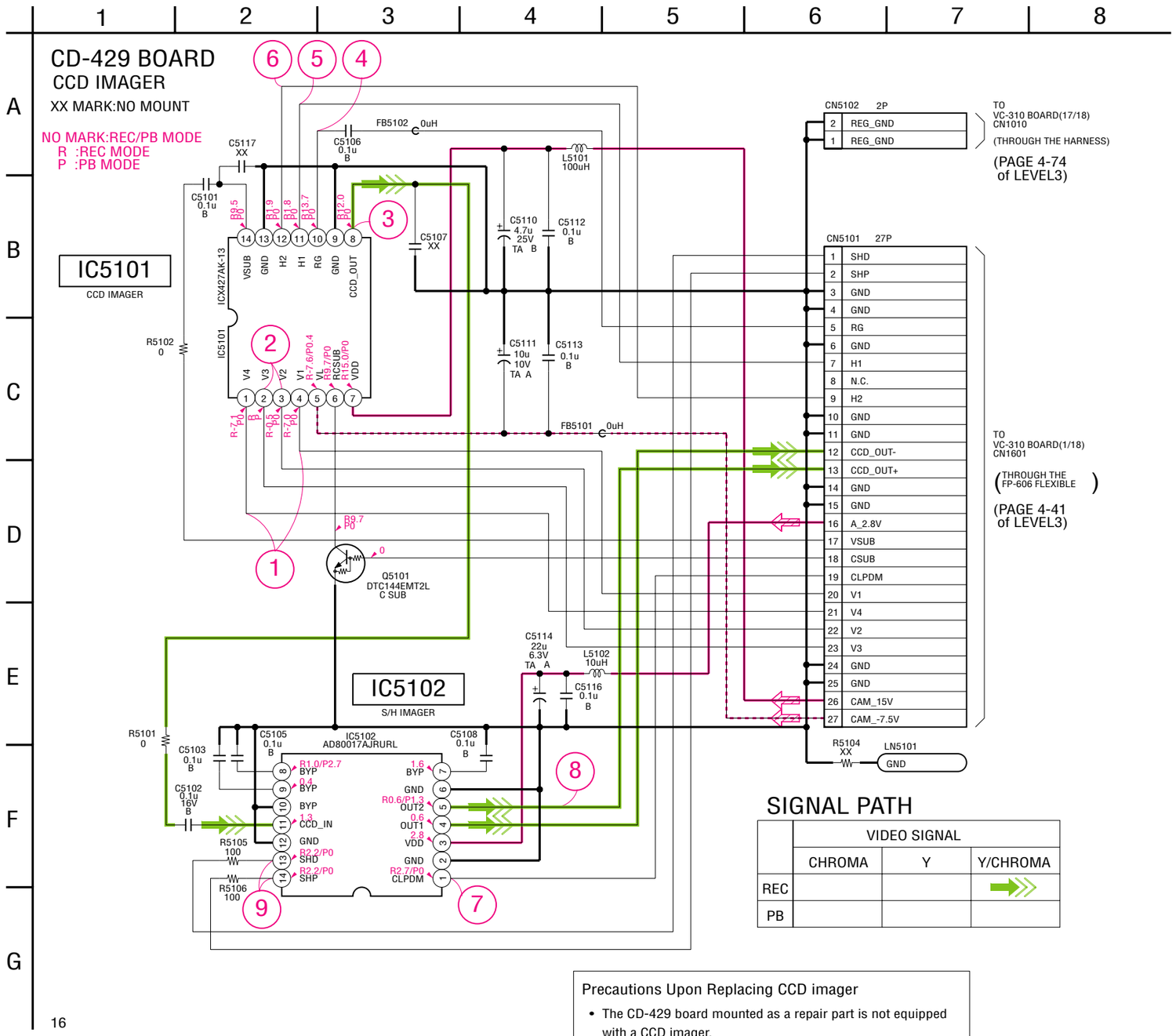
When indicating parts by reference number, please include the board name.

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

4-2. SCHEMATIC DIAGRAMS

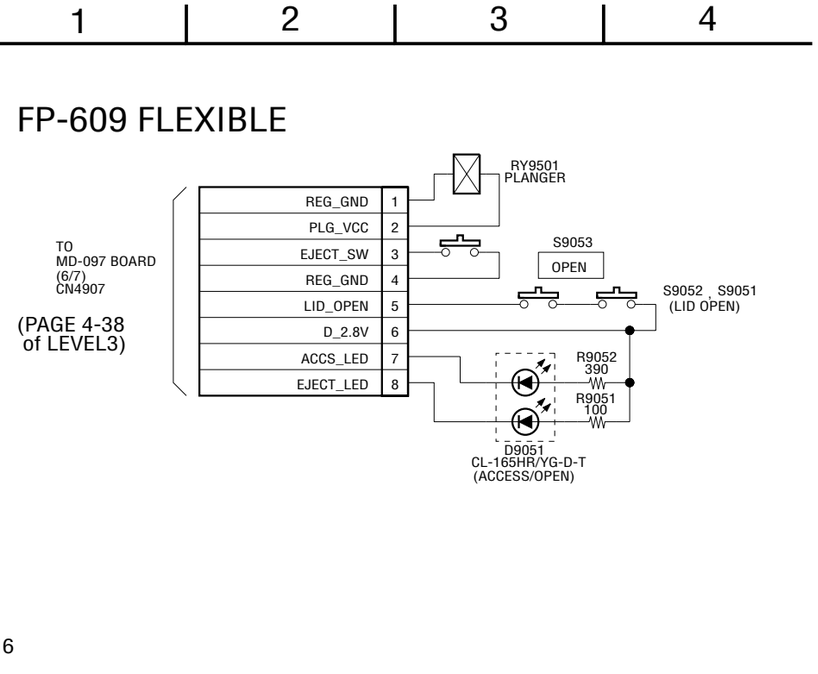
For Schematic Diagram

- Refer to page 4-83 for printed wiring board of CD-429 board.
- Refer to page 4-93 for printed wiring board of FP-609 board.
- Refer to page 4-107 for waveforms of CD-429 board.



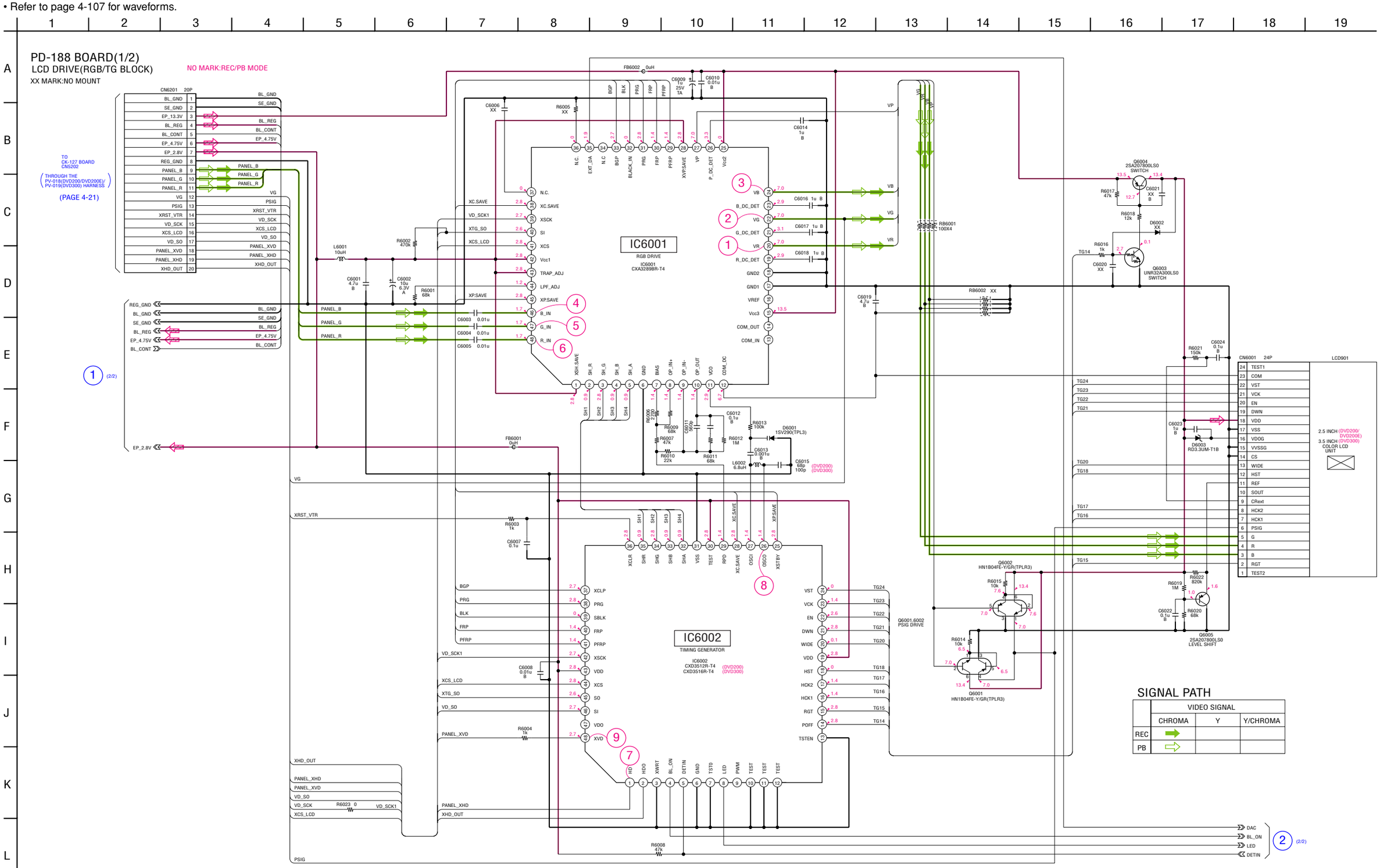
Precautions Upon Replacing CCD imager

- The CD-429 board mounted as a repair part is not equipped with a CCD imager.
  When replacing this board, remove the CCD imager from the old one and mount it onto the new one.
- If the CCD imager has been replaced, carry out all the adjustments for the camera section.
- As the CCD imager may be damaged by static electricity from its structure, handle it carefully like for the MOS IC.
  In addition, ensure that the receiver is not covered with dusts nor exposed to strong light.

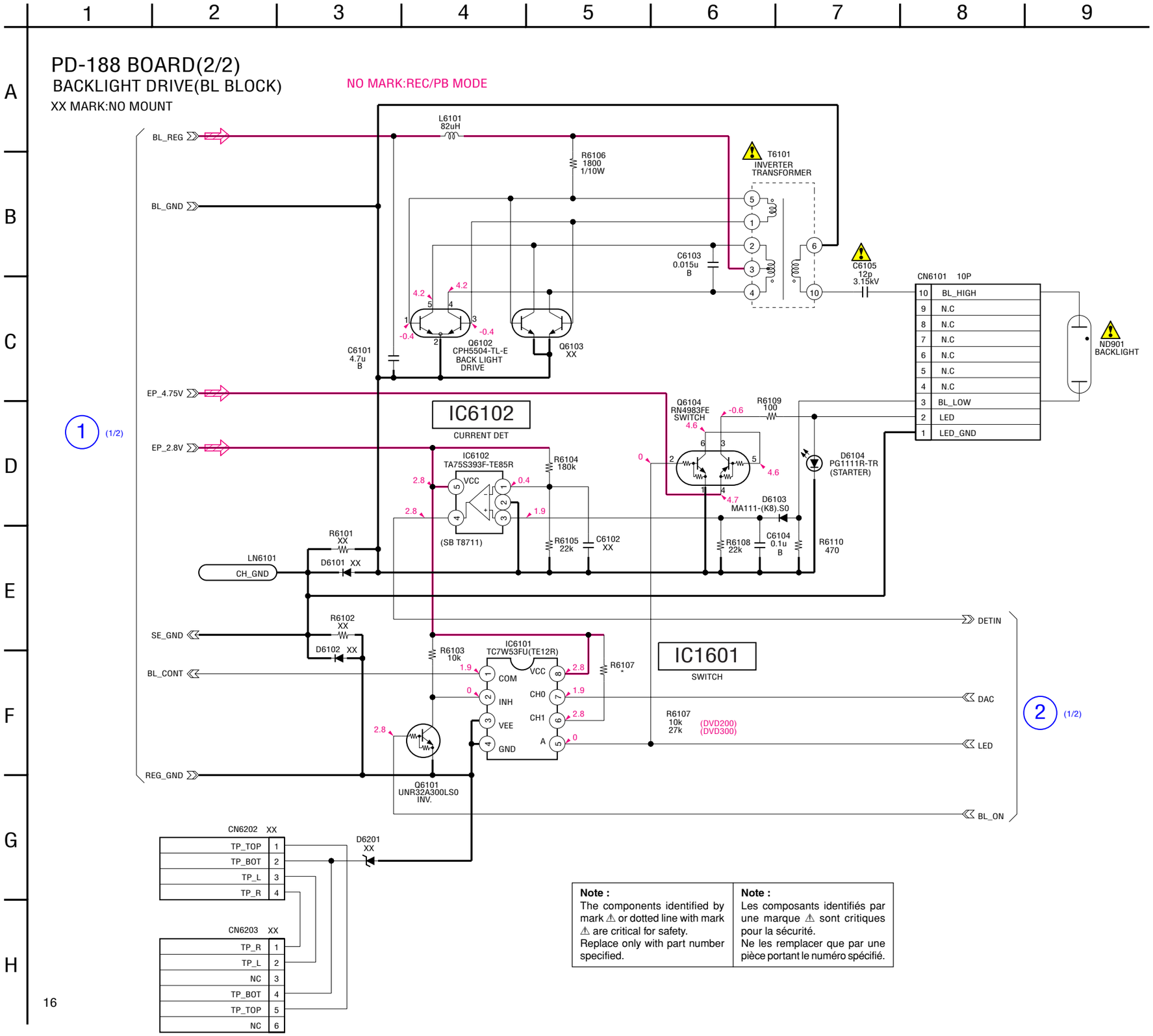


For Schematic Diagram

• Refer to page 4-85 for printed wiring board.
• Refer to page 4-107 for waveforms.



For Schematic Diagram
- Refer to page 4-85 for printed wiring board.
- Refer to page 4-107 for waveforms.



Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

For Schematic Diagram

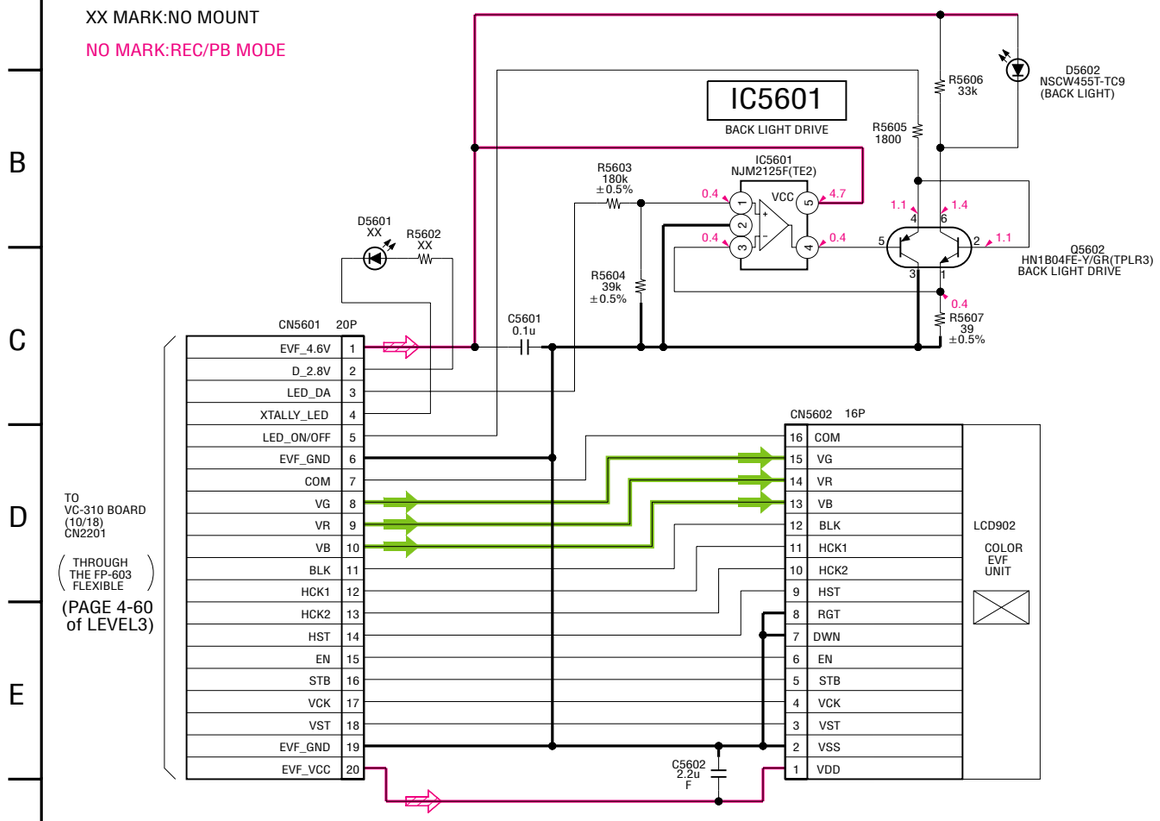
• Refer to page 4-87 for printed wiring board of LB-084 board.
• Refer to page 4-93 for printed wiring board of FP-608 flexible board.

LB-084 BOARD

EVF CONNECTOR,EVF BACK LIGHT

XX MARK:NO MOUNT

NO MARK:REC/PB MODE



SIGNAL PATH

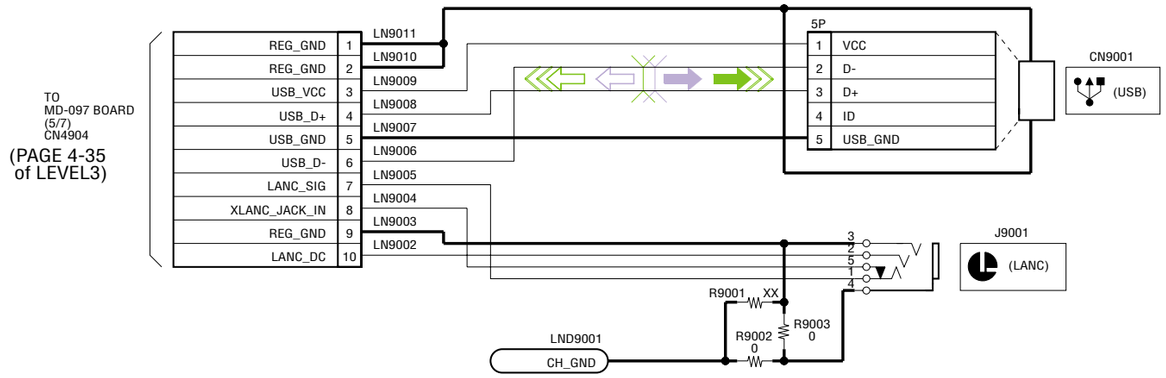
	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC	➡		
PB			

16

FP-608 FLEXIBLE

USB,LANC

XX MARK:NO MOUNT



SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC			➡	➡
PB			⇨	⇨

16

For Schematic Diagram

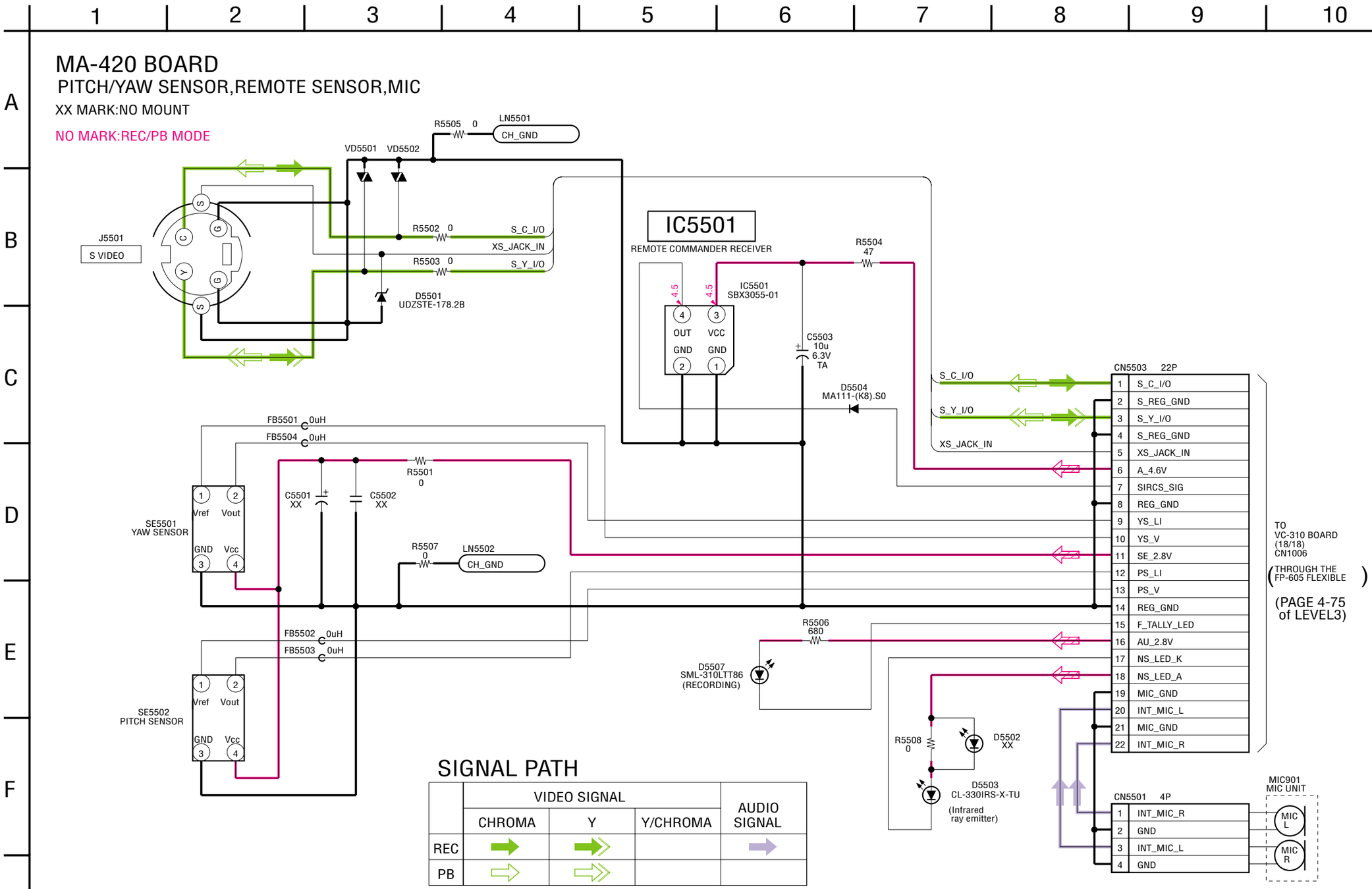
• Refer to page 4-89 for printed wiring board.

MA-420 BOARD

PITCH/YAW SENSOR,REMOTE SENSOR,MIC

XX MARK:NO MOUNT

NO MARK:REC/PB MODE

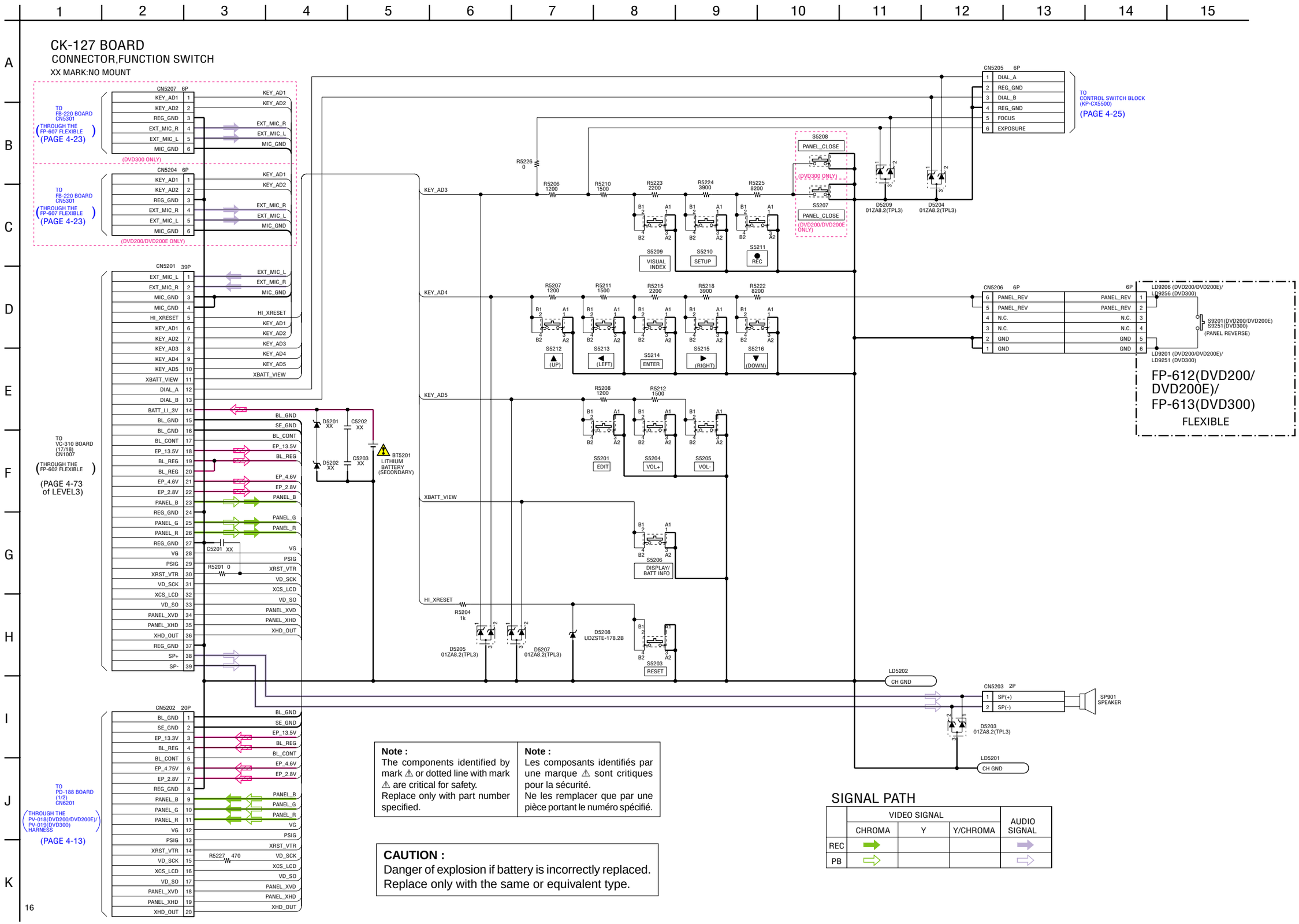


SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	➡	➡		➡
PB	⇨	⇨		

For Schematic Diagram

• Refer to page 4-91 for printed wiring board.



Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note :
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

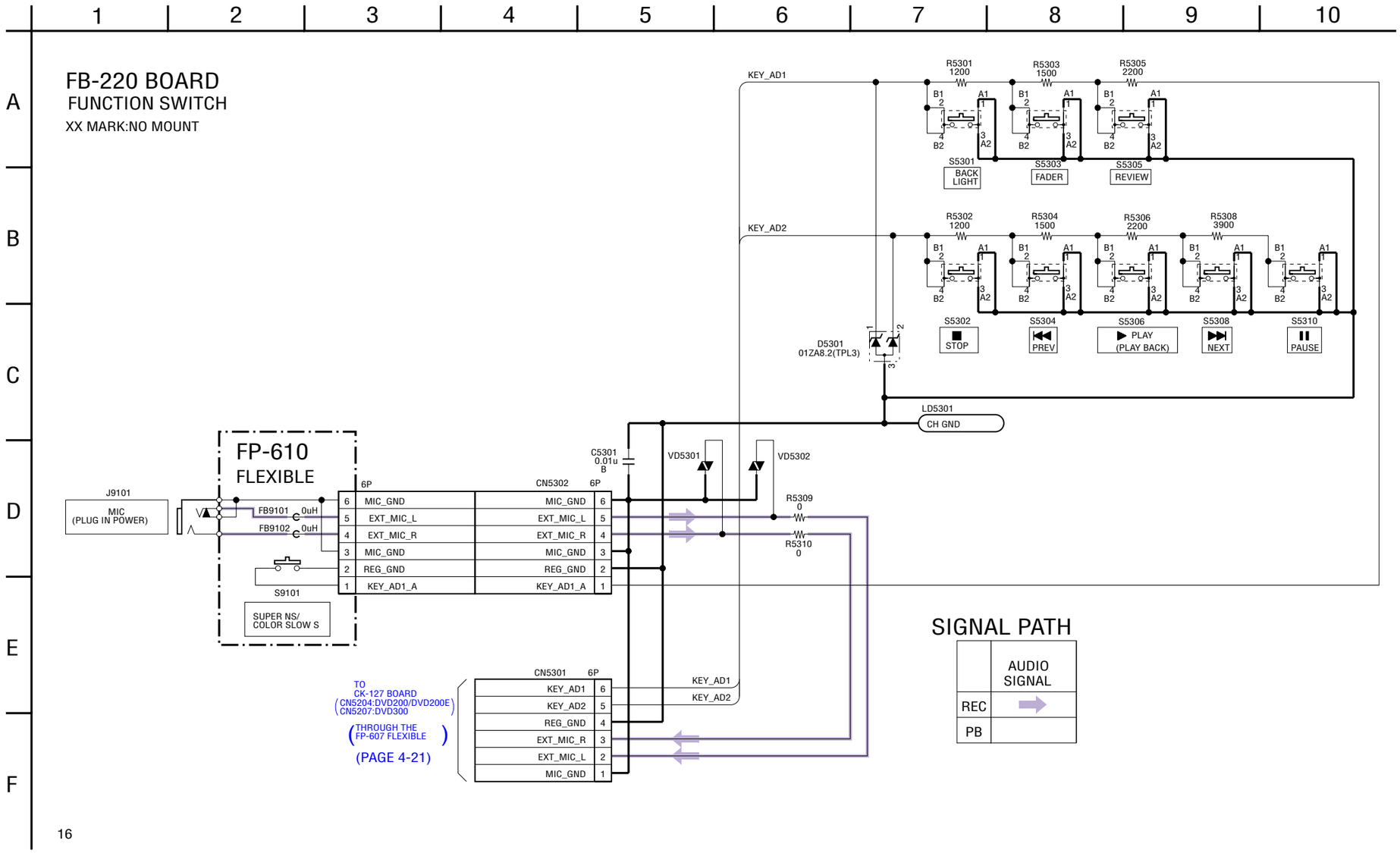
CAUTION :
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

SIGNAL PATH

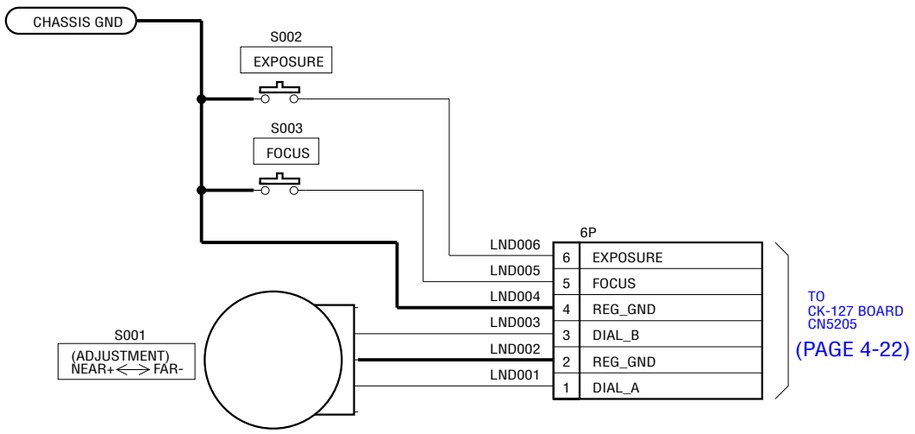
	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	➡			➡
PB	⇨			⇨

For Schematic Diagram

• Refer to page 4-87 for printed wiring board of FB-220 board.
• Refer to page 4-93 for printed wiring board of FP-610 flexible board.

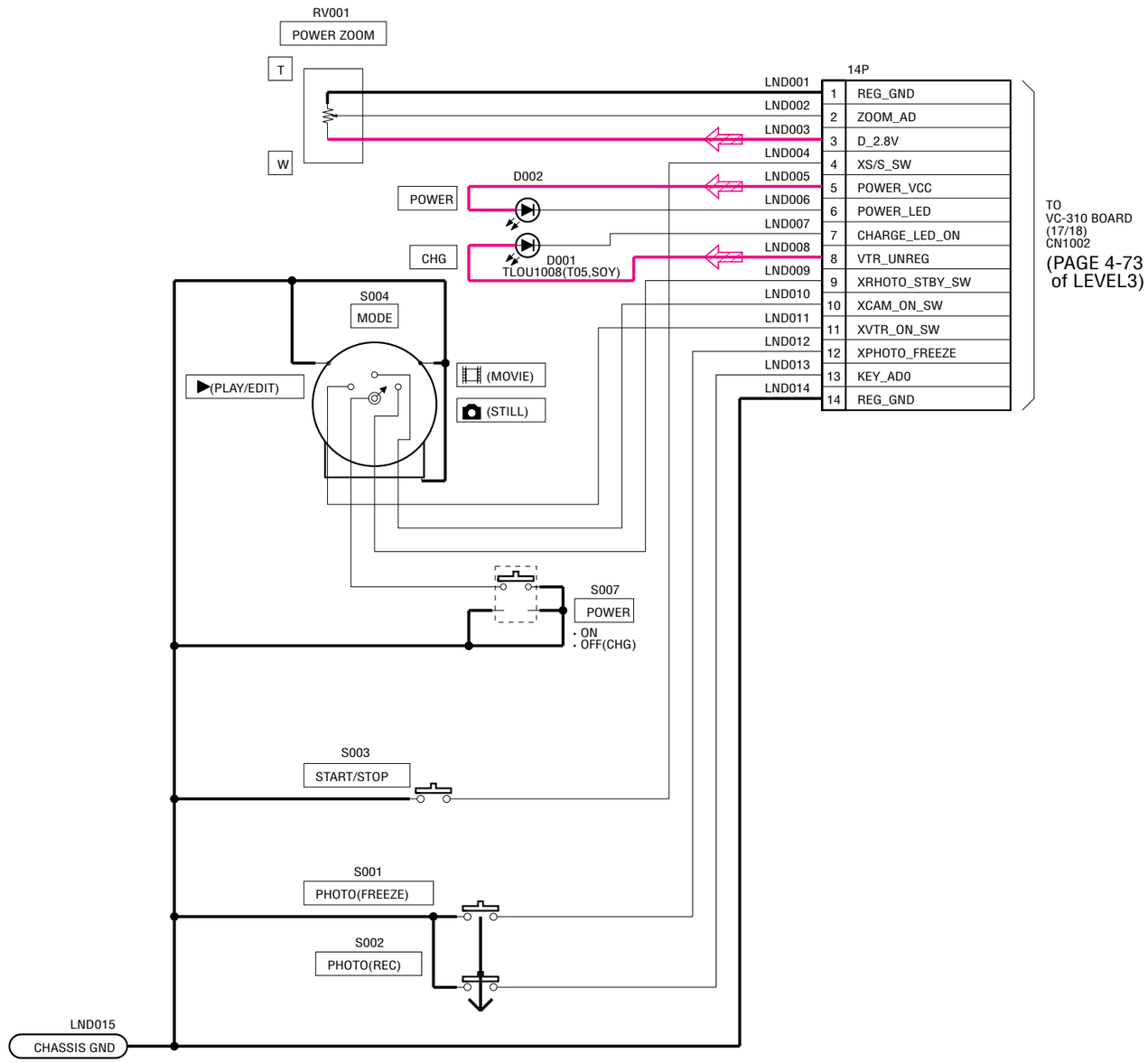


CONTROL SWITCH BLOCK(KP-CX5500)
FUNCTION SWITCH



CONTROL SWITCH BLOCK (KP-CX5500)
is replaced as a block.
So that this PRINTED WIRING is omitted.

CONTROL SWITCH BLOCK(PS-CX5500)
FUNCTION SWITCH

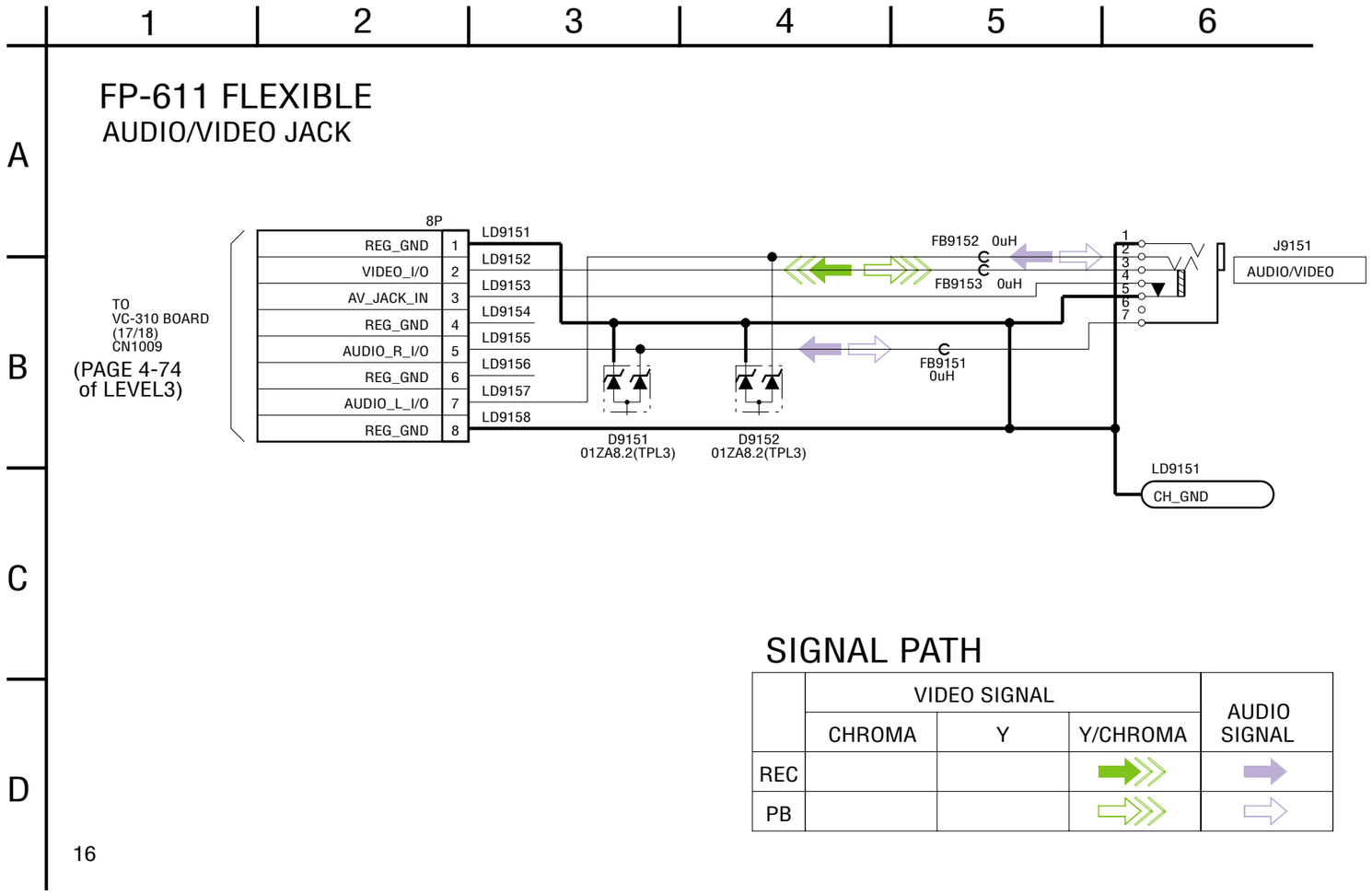


CONTROL SWITCH BLOCK (PS-CX5500)
is replaced as a block.
So that this PRINTED WIRING is omitted.

Schematic diagram of the MD-097, SS-174T and VC-310 board are not shown.
Pages from 4-27 to 4-78 are not shown.

For Schematic Diagram

• Refer to page 4-94 for printed wiring board of FP-611 flexible board.



SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC			⇒	→
PB			⇨	⇨

COVER

4-3. PRINTED WIRING BOARDS

Link

- CD-429 BOARD
- MA-420 BOARD
- PD-188 BOARD
- CK-127 BOARD
- LB-084 BOARD
- FP-608/609/610/611 FLEXIBLE BOARD
- FB-220 BOARD
- FP-612/613 FLEXIBLE BOARD

- COMMON NOTE FOR PRINTED WIRING BOARDS
- WAVEFORMS
- MOUNTED PARTS LOCATION
- CIRCUIT BOARDS LOCATION
- FLEXIBLE BOARDS LOCATION

COVER

4-3. PRINTED WIRING BOARDS

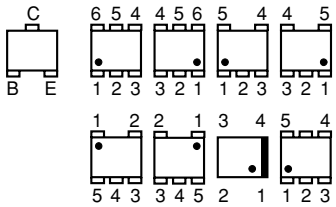
THIS NOTE IS COMMON FOR WIRING BOARDS
(In addition to this, the necessary note is printed in each block)

(For printed wiring boards)

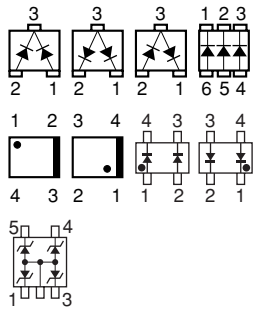
- : Uses unleaded solder.
- : Pattern from the side which enables seeing. (The other layers' patterns are not indicated)
- Through hole is omitted.
- Circled numbers refer to waveforms.
- There are a few cases that the part printed on diagram isn't mounted in this model.
- : panel designation

- Chip parts.

Transistor



Diode



BOARD INFORMATION

board name	parts location (shown on page)	waveform (shown on page)	pattern		CSP IC
			number of layers	layers not shown	
CD-429	4-111	4-107	2	–	–
PD-188	4-111	4-107	2	–	–
LB-084	4-111	–	2	–	–
FB-220	4-111	–	2	–	–
MA-420	4-112	–	2	–	–
CK-127	4-112	–	2	–	–
SS-174T	4-116	–	8	2 to 7	–
MD-097	4-113	–	8	2 to 7	IC4602
VC-310	4-114	4-109	8	2 to 7	IC1701, 1801, 2001, 3001, 3103, 3203, 3401, 3403, 3501, 3601, 3602, 3603, 3701, 3801, 3803

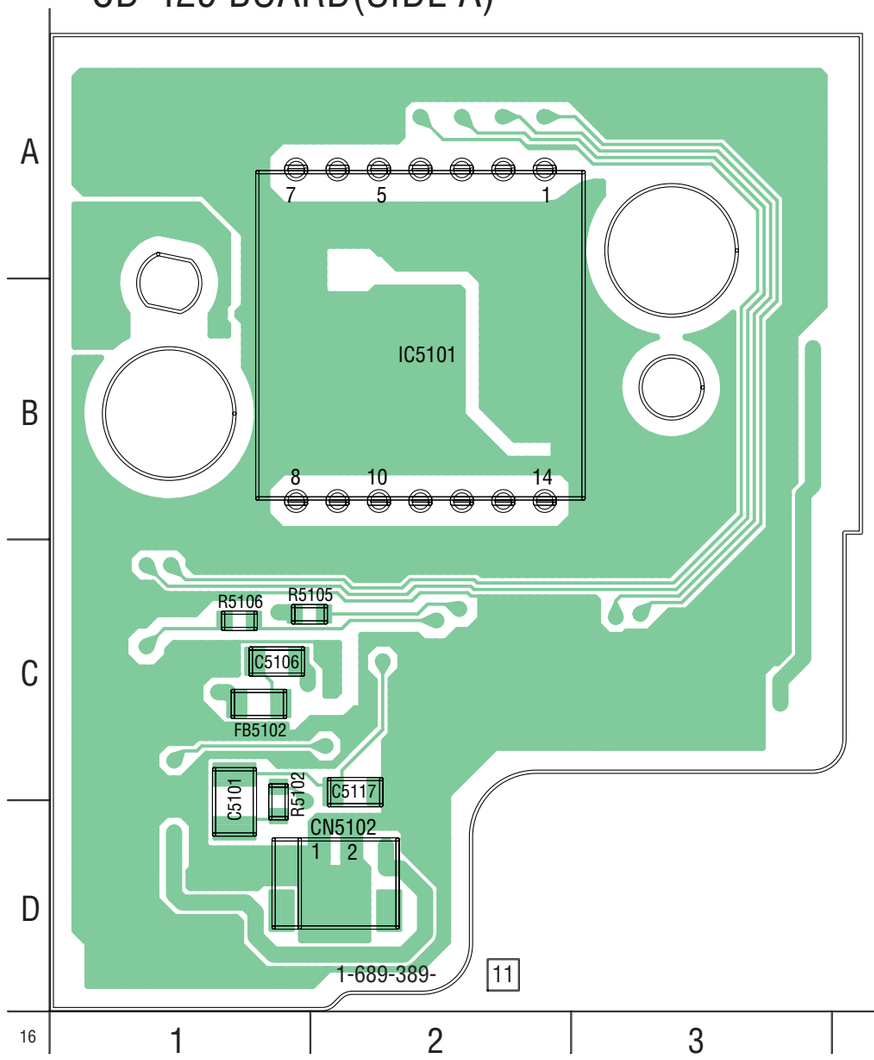
4-3. PRINTED WIRING BOARDS

CD-429 (CCD IMAGER) PRINTED WIRING BOARD

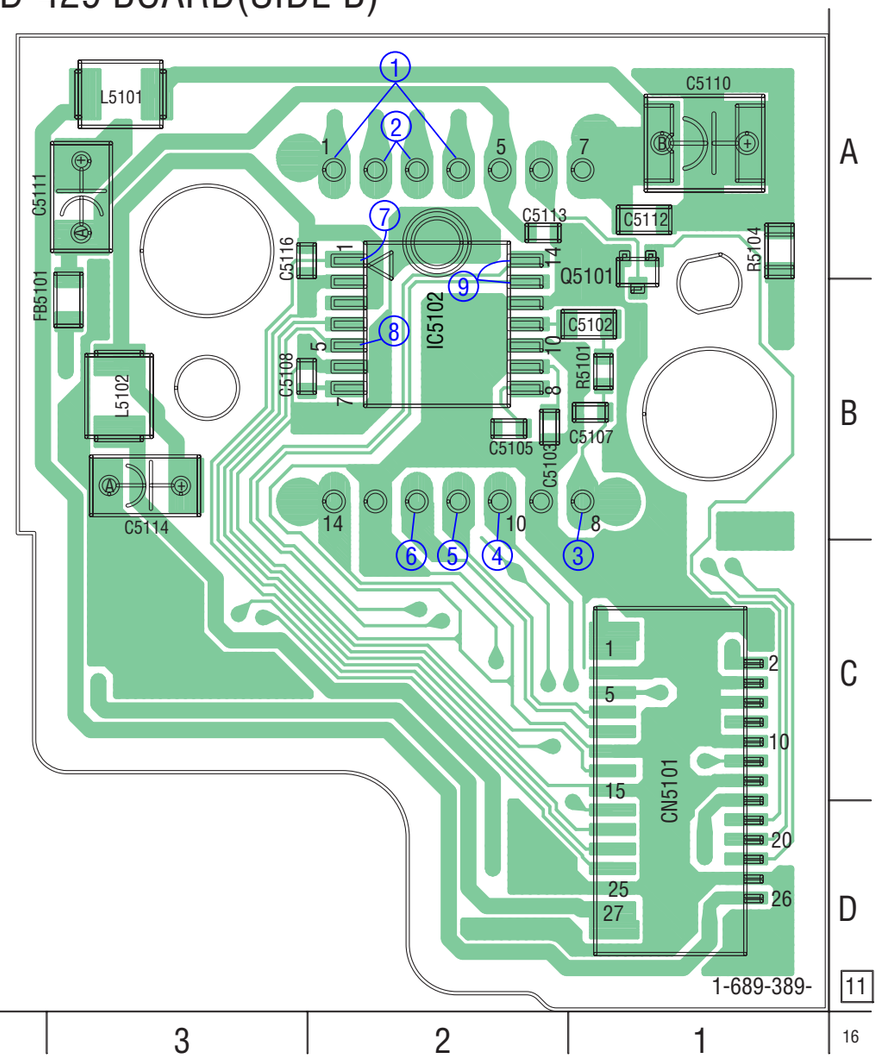
• Refer to page 4-81 for common note for printed wiring board.

• : Uses unleaded solder.

CD-429 BOARD(SIDE A)



CD-429 BOARD(SIDE B)

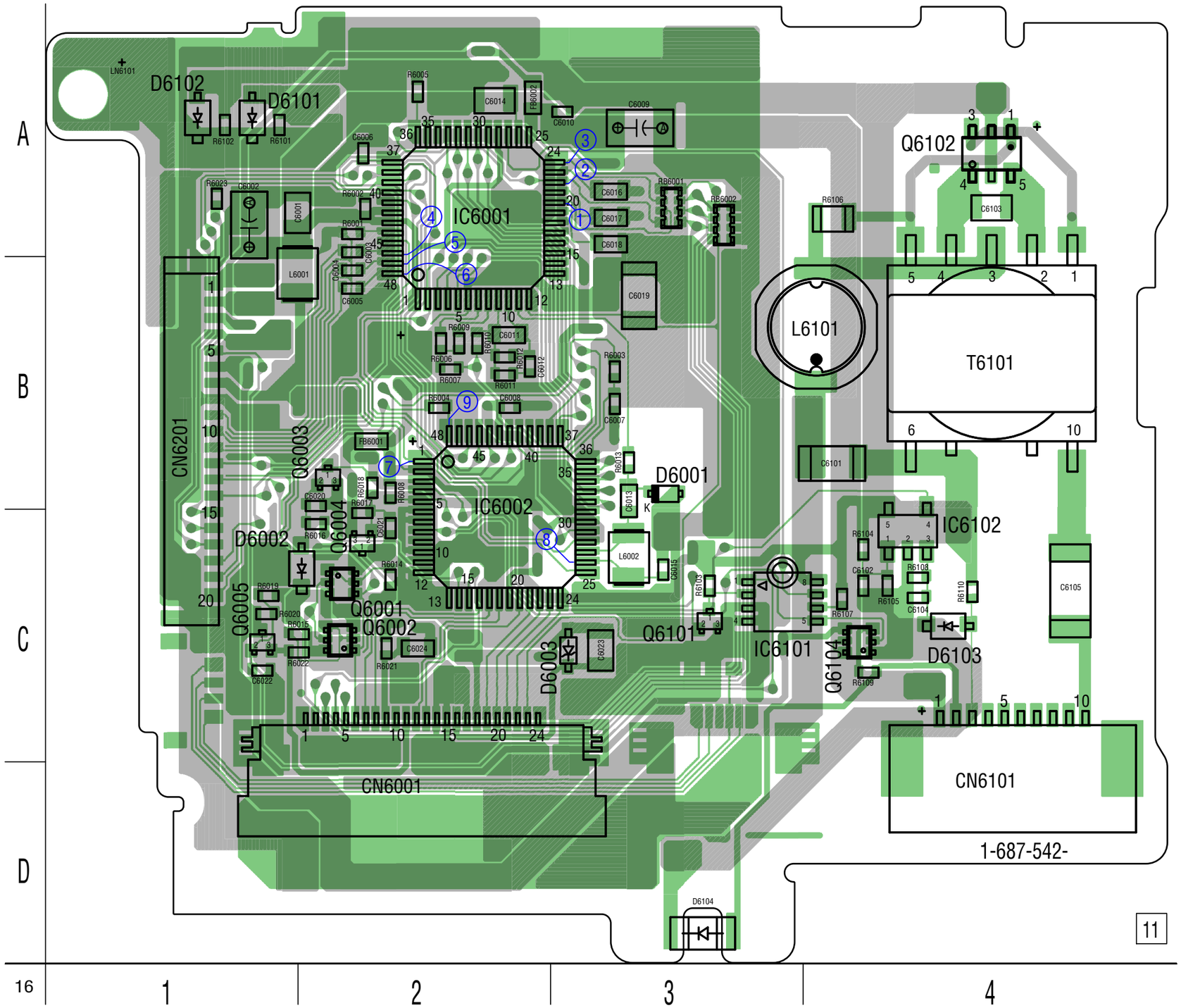


PD-188 (LCD DRIVE, BACKLIGHT DRIVE) PRINTED WIRING BOARD

• Refer to page 4-81 for common note for printed wiring board.

• : Uses unleaded solder.

PD-188 BOARD

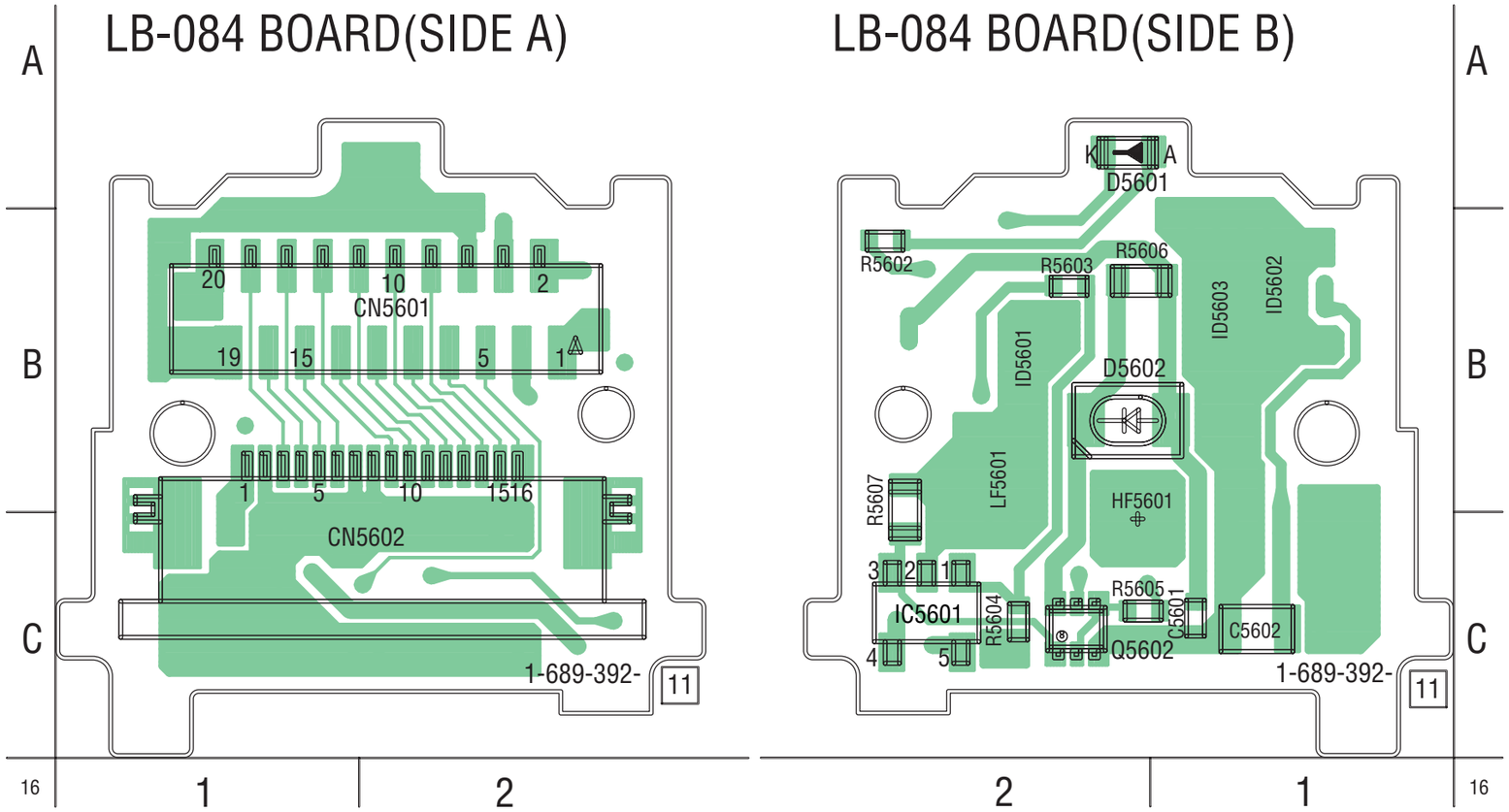


LB-084 (EVF CONNECTOR, EVF BACK LIGHT) PRINTED WIRING BOARD
FB-220 (FUNCTION SWITCH) PRINTED WIRING BOARD

• Refer to page 4-81 for common note for printed wiring board.

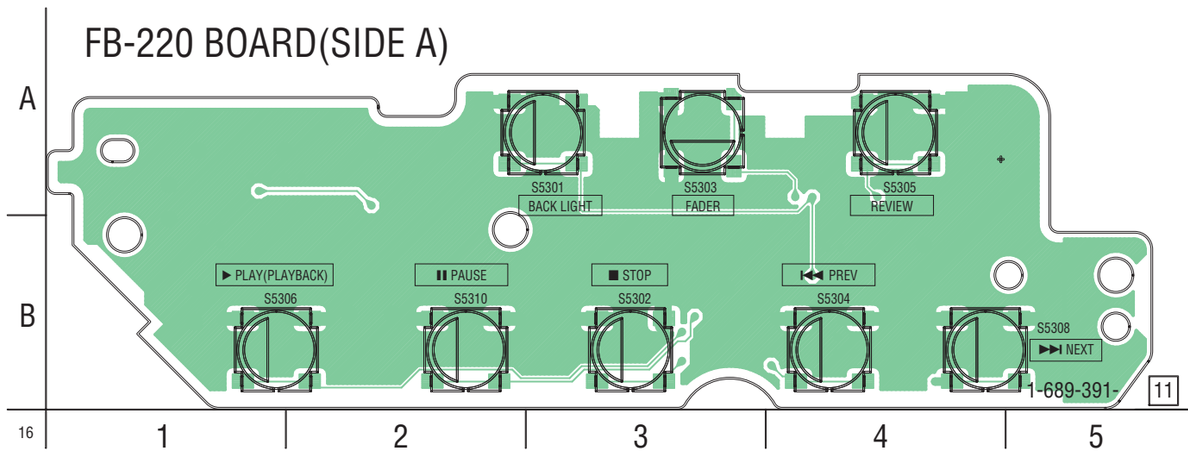
• 4F : Uses unleaded solder.

LB-084 BOARD(SIDE A)

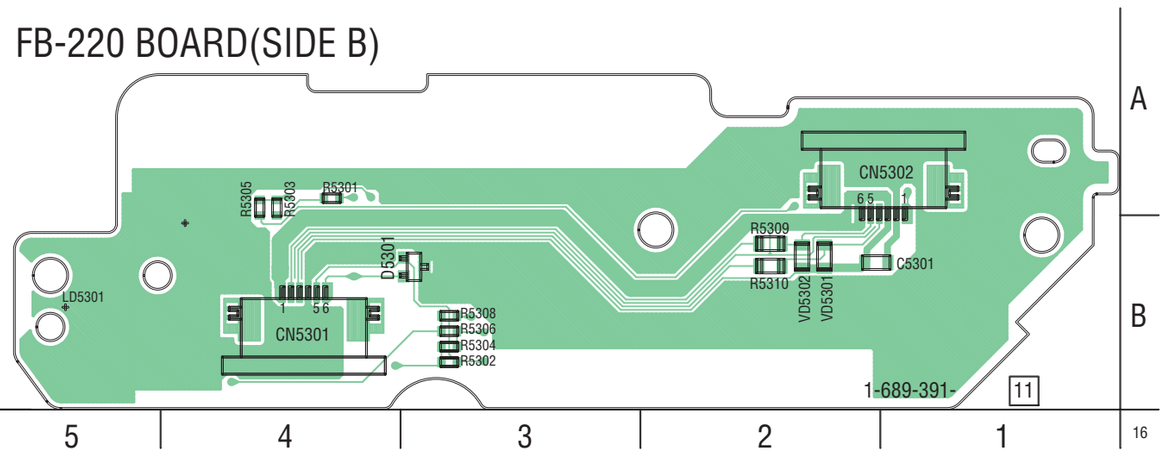


LB-084 BOARD(SIDE B)

FB-220 BOARD(SIDE A)



FB-220 BOARD(SIDE B)

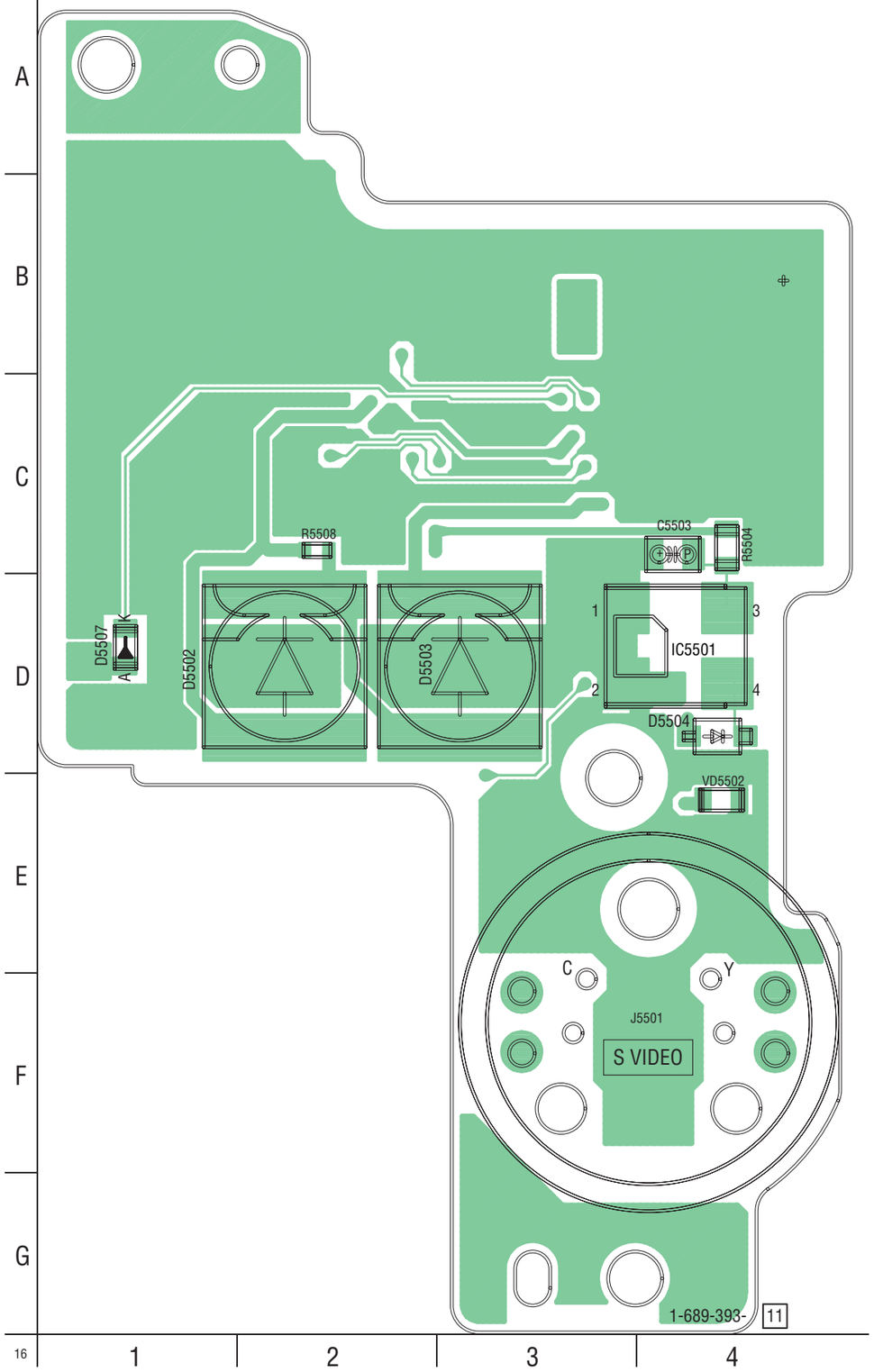


MA-420 (PITCH/YAW SENSOR, REMOTE SENSOR, MIC) PRINTED WIRING BOARD

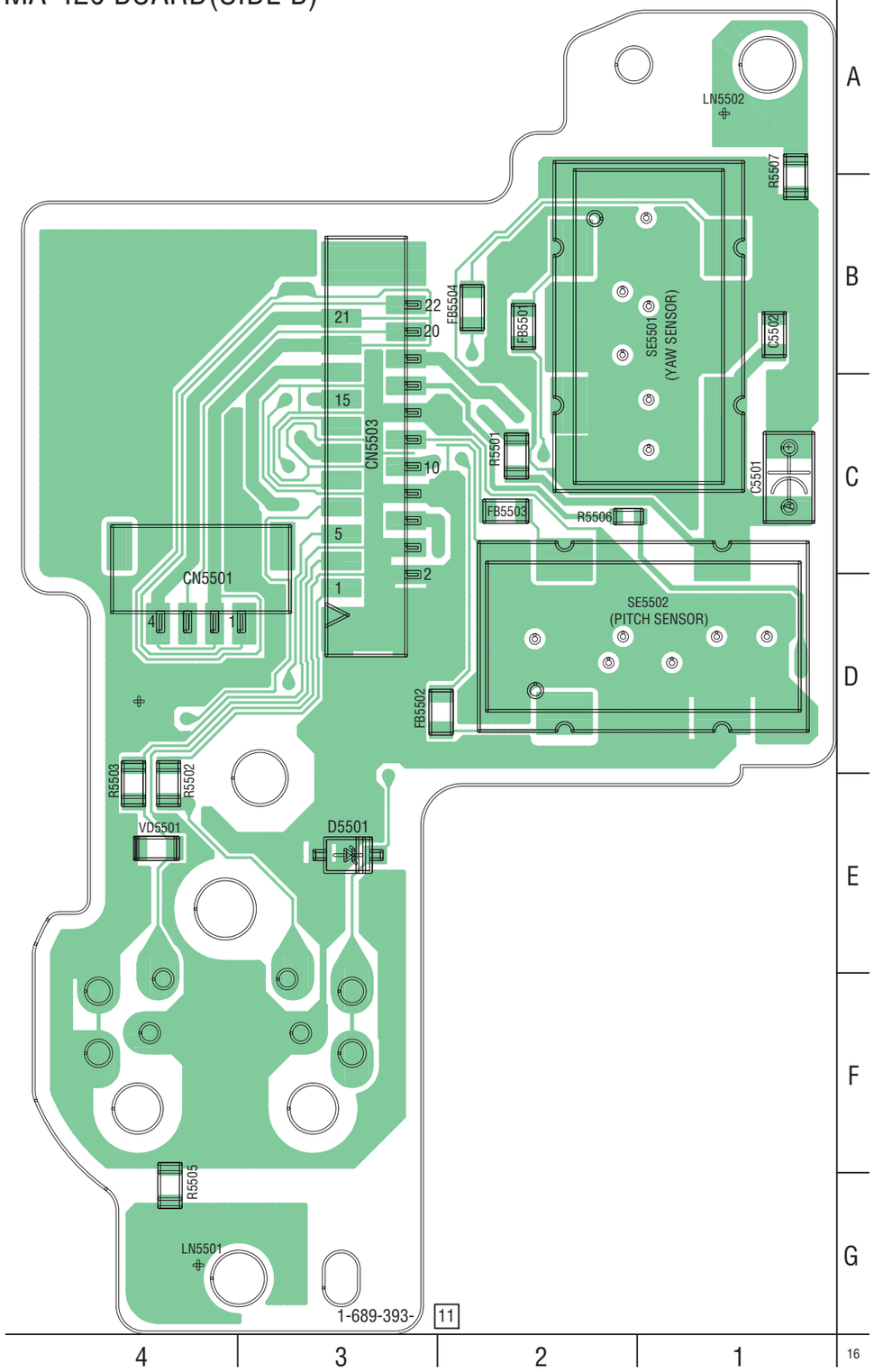
• Refer to page 4-81 for common note for printed wiring board.

• : Uses unleaded solder.

MA-420 BOARD(SIDE A)



MA-420 BOARD(SIDE B)

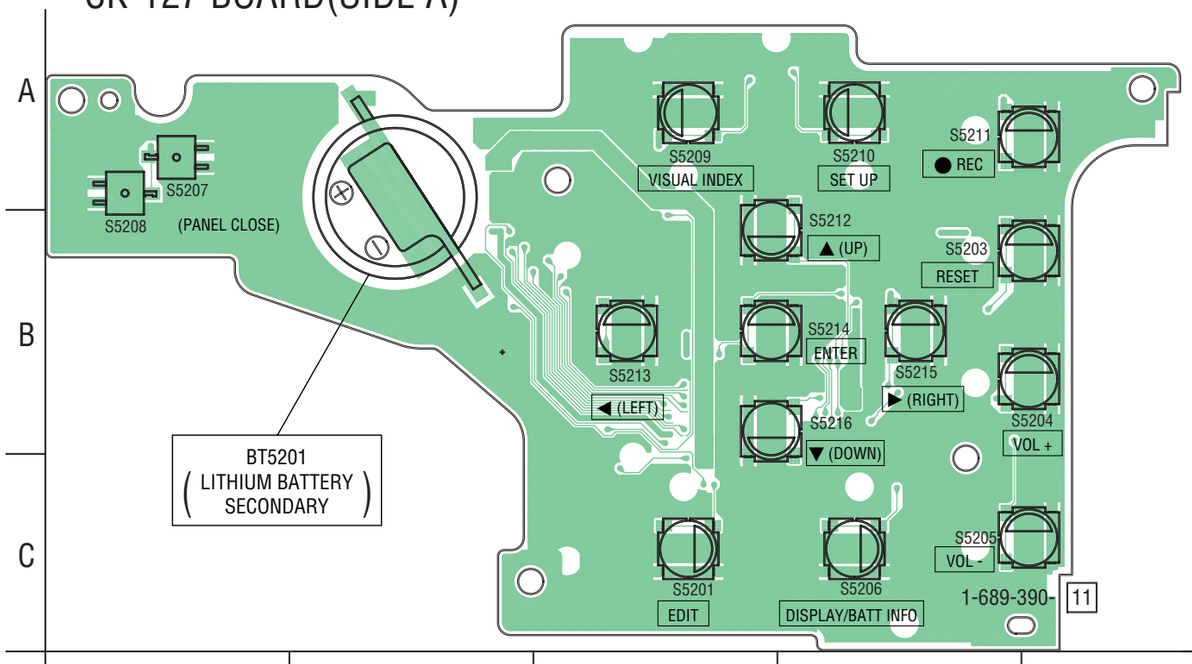


CK-127 (CONNECTOR, FUNCTION SWITCH) PRINTED WIRING BOARD

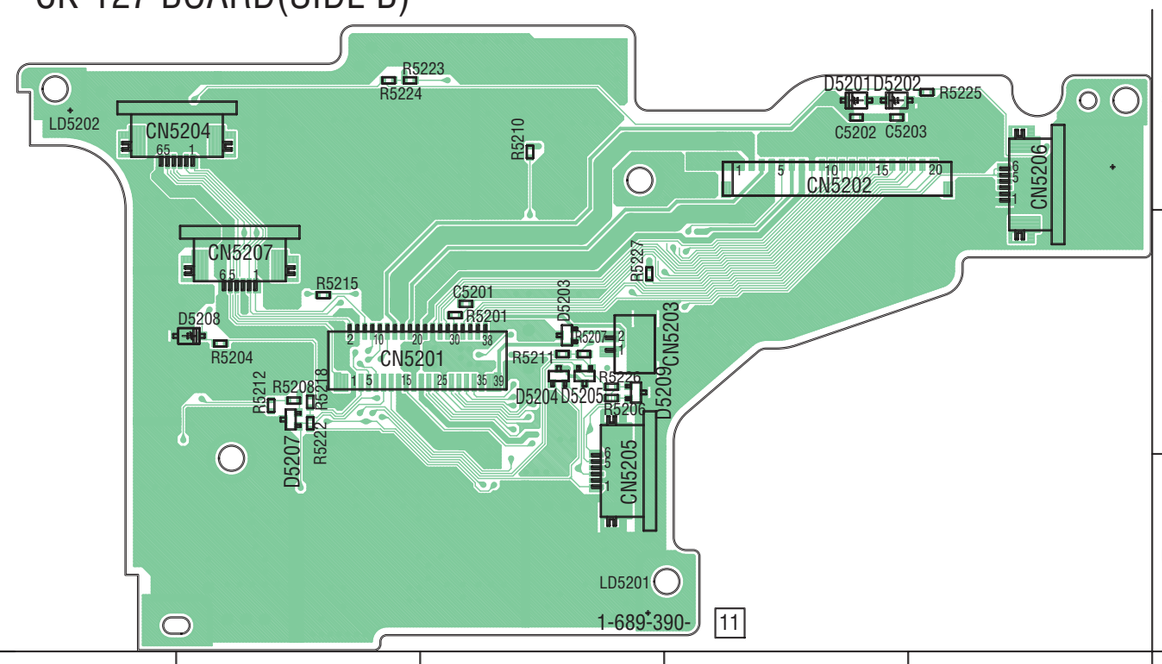
• Refer to page 4-81 for common note for printed wiring board.

• : Uses unleaded solder.

CK-127 BOARD(SIDE A)



CK-127 BOARD(SIDE B)



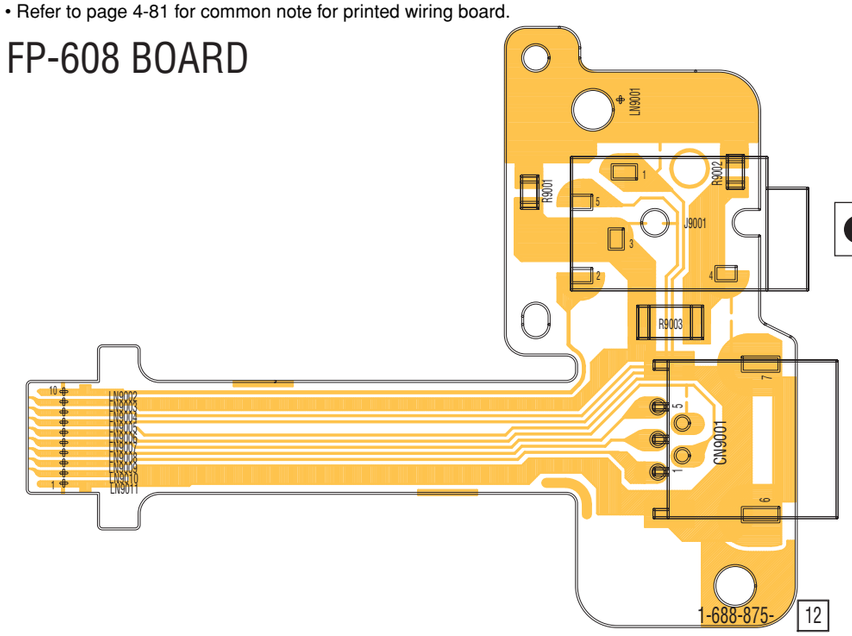
CAUTION :
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

FP-608 (USB, LANC), FP-609 (PLUNGER, EJECT), FP-610 (EXT MIC), FP-611 (AV CONNECTOR) FLEXIBLE PRINTED WIRING BOARD

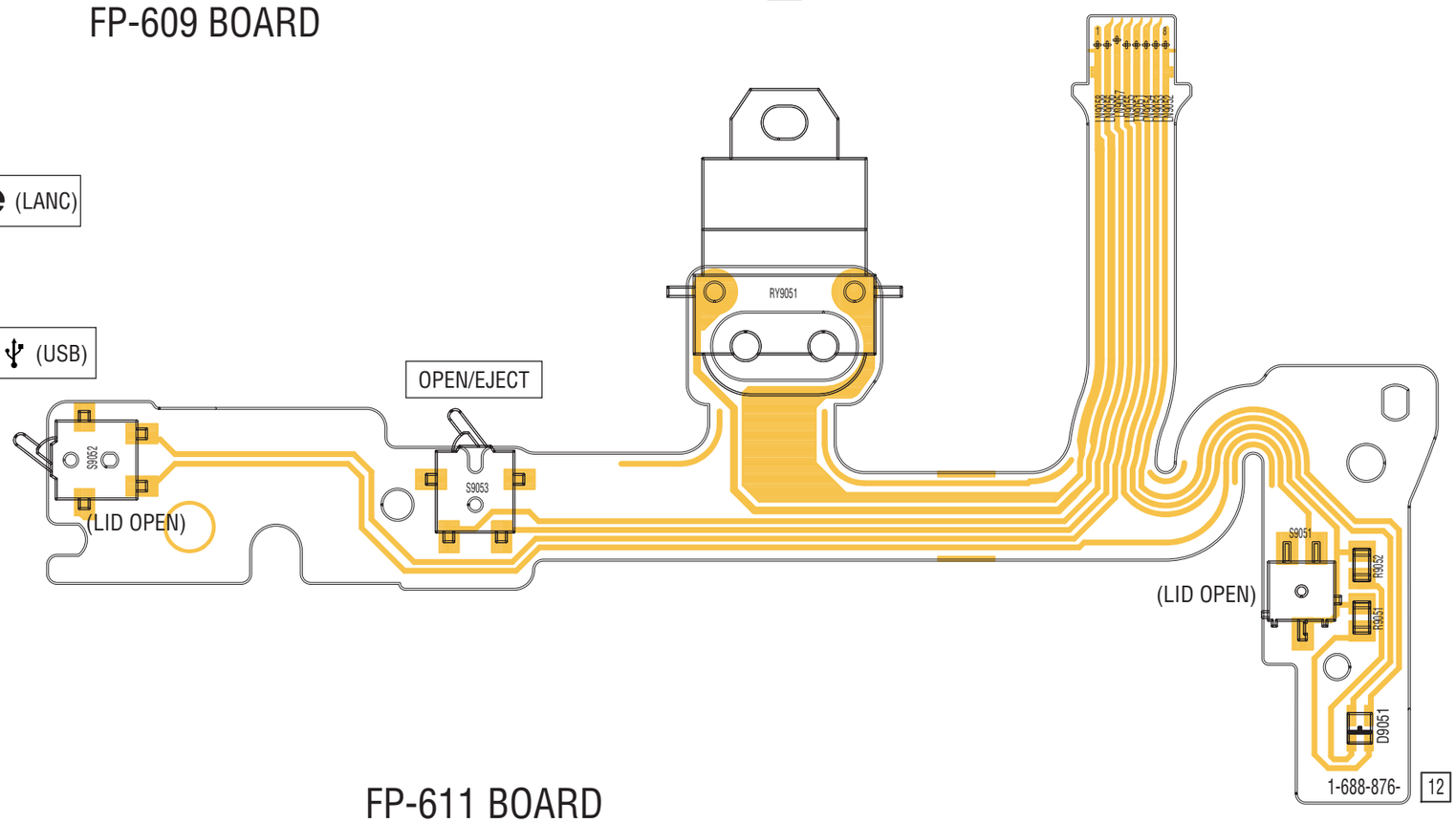
• Refer to page 4-81 for common note for printed wiring board.

• : Uses unleaded solder.

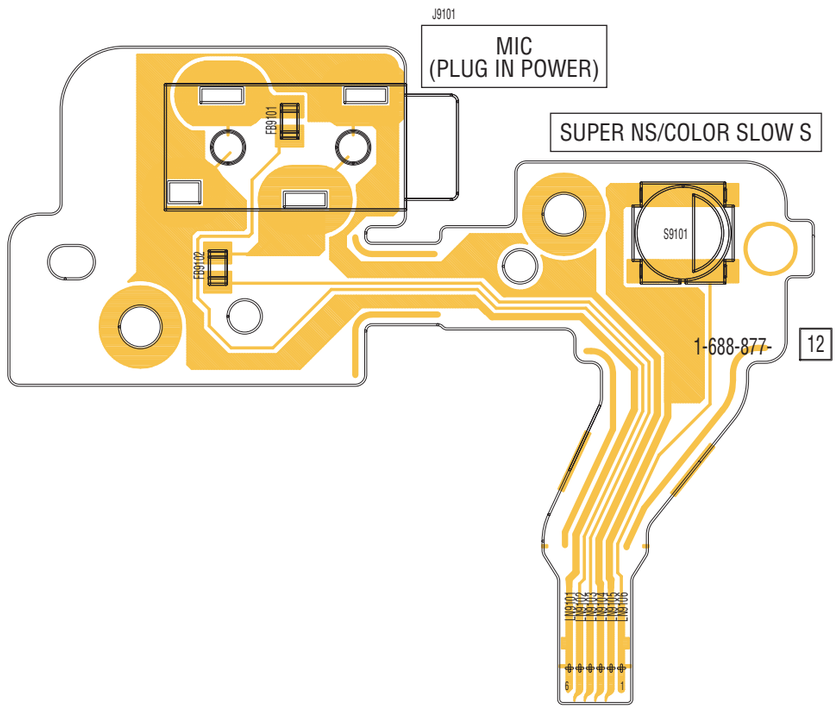
FP-608 BOARD



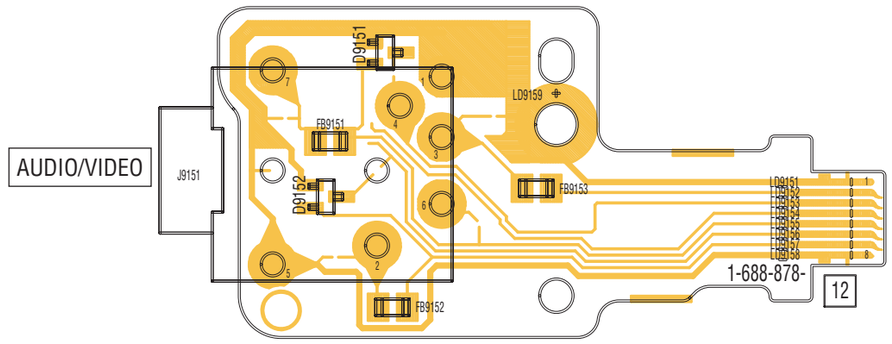
FP-609 BOARD



FP-610 BOARD



FP-611 BOARD

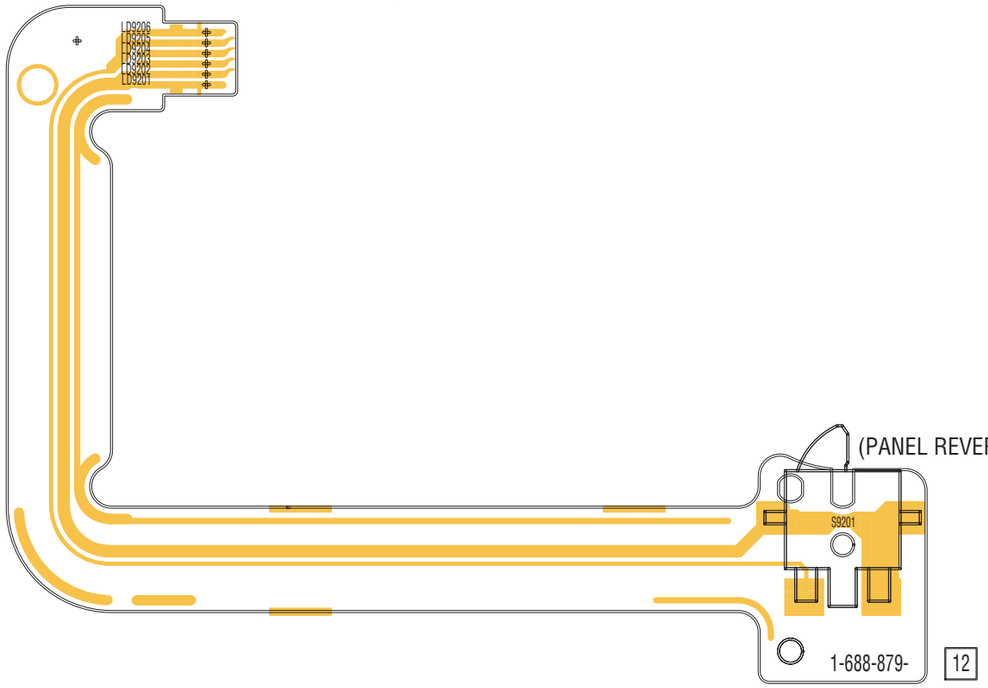


FP-612 (PANEL REVERSE), FP-613 (PANEL REVERSE) FLEXIBLE PRINTED WIRING BOARD

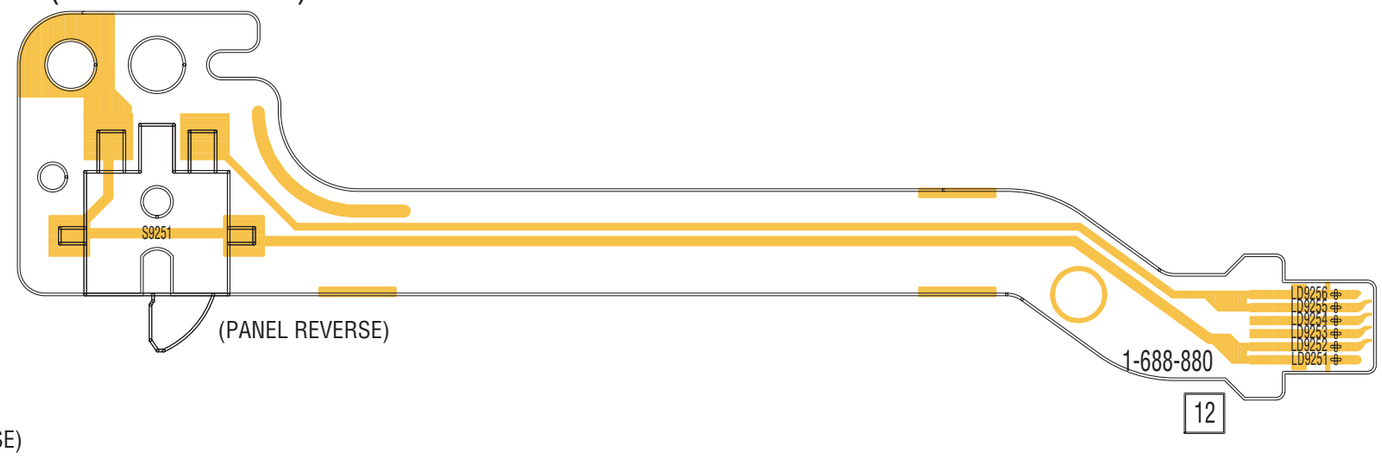
• Refer to page 4-81 for common note for printed wiring board.

• : Uses unleaded solder.

FP-612 BOARD
(DVD200/DVD200E ONLY)



FP-613 BOARD
(DVD300 ONLY)

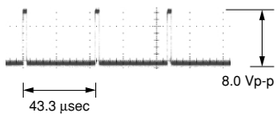


Printed wiring board of the MD-097, SS-174T and VC-310 board are not shown.
Pages from 4-97 to 4-106 are not shown.

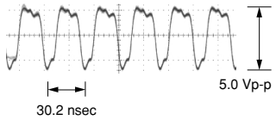
4-4. WAVEFORMS

CD-429 BOARD

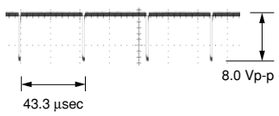
① IC5101 ①,④



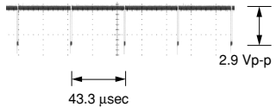
⑥ IC5101 ⑫



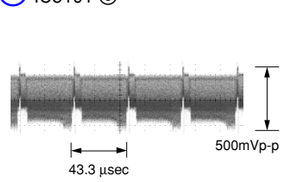
② IC5101 ②,③



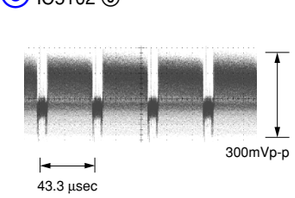
⑦ IC5102 ①



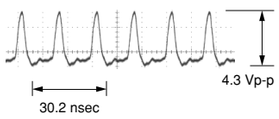
③ IC5101 ⑧



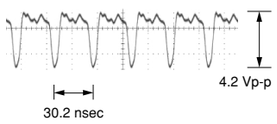
⑧ IC5102 ⑤



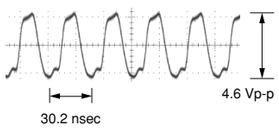
④ IC5101 ⑩



⑨ IC5102 ⑬,⑭

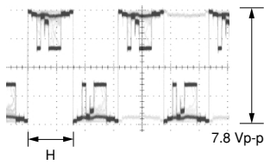


⑤ IC5101 ⑪

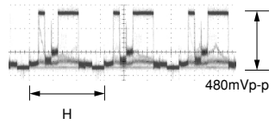


PD-188 BOARD

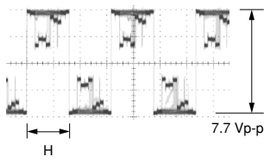
① IC6001 ⑳



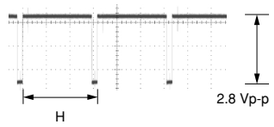
⑥ IC6001 ㊽



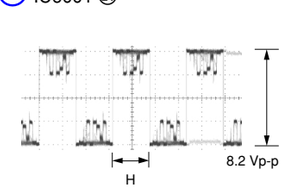
② IC6001 ㉒



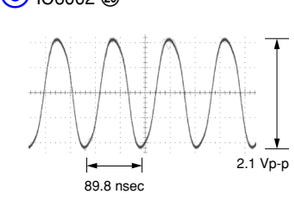
⑦ IC6002 ①



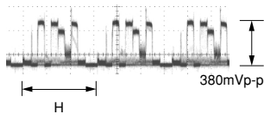
③ IC6001 ㉔



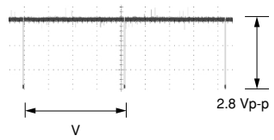
⑧ IC6002 ㉖



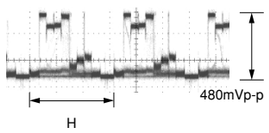
④ IC6001 ㊻



⑨ IC6002 ㊽



⑤ IC6001 ㊼



Waveforms of the VC-310 board is not shown.
Pages from 4-109 to 4-110 are not shown.

COVER

4-5. MOUNTED PARTS LOCATION

no mark : side A
* mark : side B

CD-429 BOARD

	C5101	C-1
*	C5102	B-1
*	C5103	B-2
*	C5105	B-2
	C5106	C-1
*	C5107	B-1
*	C5108	B-2
*	C5110	A-1
*	C5111	A-3
*	C5112	A-1
*	C5113	A-2
*	C5114	B-3
*	C5116	A-2
	C5117	C-2
*	CN5101	C-1
	CN5102	D-2
*	FB5101	B-3
	FB5102	C-1
	IC5101	B-2
*	IC5102	B-2
*	L5101	A-3
*	L5102	B-3
*	Q5101	A-1
*	R5101	B-1
	R5102	C-1
*	R5104	A-1
	R5105	C-1
	R5106	C-1

PD-188 BOARD

	C6001	A-2
	C6002	A-1
	C6003	A-2
	C6004	B-2
	C6005	B-2
	C6006	A-2
	C6007	B-3
	C6008	B-2
	C6009	A-3
	C6010	A-3
	C6011	B-2
	C6012	B-2
	C6013	B-3
	C6014	A-2
	C6015	C-3
	C6016	A-3
	C6017	A-3
	C6018	A-3
	C6019	B-3
	C6020	B-2
	C6021	C-2
	C6022	C-1
	C6023	C-3
	C6024	C-2
	C6101	B-4
	C6102	C-4
	C6103	A-4
	C6104	C-4
	C6105	C-4
	CN6001	D-2
	CN6101	D-4
	CN6201	B-1
	CN6202	C-1
	CN6203	D-3
	D6001	B-3
	D6002	C-2
	D6003	C-3
	D6101	A-1
	D6102	A-1
	D6103	C-4
	D6104	D-3
	FB6001	B-2
	FB6002	A-2
	IC6001	A-2
	IC6002	C-2
	IC6101	C-3
	IC6102	C-4
	L6001	B-2
	L6002	C-3
	L6101	B-4
	Q6001	C-2
	Q6002	C-2
	Q6003	B-2
	Q6004	C-2
	Q6005	C-1
	Q6101	C-3
	Q6102	A-4
	Q6103	A-4
	Q6104	C-4
	R6001	A-2
	R6002	A-2
	R6003	B-3
	R6004	B-2
	R6005	A-2
	R6006	B-2
	R6007	B-2
	R6008	B-2
	R6009	B-2
	R6010	B-2
	R6011	B-2
	R6012	B-2
	R6013	B-3
	R6014	C-2
	R6015	C-2
	R6016	C-2
	R6017	C-2
	R6018	B-2
	R6019	C-1
	R6020	C-1
	R6021	C-2
	R6022	C-2
	R6023	A-1
	R6101	A-1
	R6102	A-1
	R6103	C-3
	R6104	C-4
	R6105	C-4
	R6106	A-4
	R6107	C-4
	R6108	C-4
	R6109	C-4
	R6110	C-4
	RB6001	A-3
	RB6002	A-3
	T6101	B-4

LB-084 BOARD

*	C5601	C-1
*	C5602	C-1
	CN5601	B-1
	CN5602	C-2
*	D5601	A-2
*	D5602	B-2
*	IC5601	C-2
*	Q5602	C-2
*	R5602	B-2
*	R5603	B-2
*	R5604	C-2
*	R5605	C-2
*	R5606	B-2
*	R5607	B-2

FB-220 BOARD

*	C5301	B-2
*	CN5301	B-4
*	CN5302	A-1
*	D5301	B-3
*	R5301	A-4
*	R5302	B-3
*	R5303	A-4
*	R5304	B-3
*	R5305	A-4
*	R5306	B-3
*	R5308	B-3
*	R5309	B-2
*	R5310	B-2
	S5301	A-3
	S5302	B-3
	S5303	A-3
	S5304	B-4
	S5305	A-4
	S5306	B-1
	S5308	B-4
	S5310	B-2
*	VD5301	B-2
*	VD5302	B-2

COVER

4-3. PRINTED WIRING BOARDS

no mark : side A
* mark : side B

MA-420 BOARD

* C5501 C-1
* C5502 B-1
C5503 C-4

* CN5501 C-4
* CN5503 C-3

* D5501 E-3
D5502 D-2
D5503 D-3
D5504 D-4
D5507 D-1

* FB5501 B-2
* FB5502 D-3
* FB5503 C-2
* FB5504 B-2

IC5501 D-4

J5501 F-4

* R5501 C-2
* R5502 E-4
* R5503 E-4
R5504 C-4
* R5505 G-4
* R5506 C-2
* R5507 A-1
R5508 C-2

* SE5501 B-1
* SE5502 D-1

* VD5501 E-4
VD5502 E-4

CK-127 BOARD

BT5201 A-2

* C5201 B-3
* C5202 A-2
* C5203 A-2

* CN5201 B-3
* CN5202 A-2
* CN5203 B-3
* CN5204 A-4
* CN5205 C-3
* CN5206 A-1
* CN5207 B-4

* D5201 A-2
* D5202 A-2
* D5203 B-3
* D5204 B-3
* D5205 B-3
* D5207 B-4
* D5208 B-4
* D5209 B-3

* R5201 B-3
* R5204 B-4
* R5206 B-3
* R5207 B-3
* R5208 B-4
* R5210 A-3
* R5211 B-3
* R5212 B-4
* R5215 B-4
* R5218 B-4
* R5222 B-4
* R5223 A-4
* R5224 A-4
* R5225 A-1
* R5226 B-3
* R5227 B-3

S5201 C-3
S5203 B-4
S5204 B-4
S5205 C-4
S5206 C-4
S5207 A-1
S5208 A-1
S5209 A-3
S5210 A-4
S5211 A-4
S5212 B-3
S5213 B-3
S5214 B-3
S5215 B-4
S5216 B-3

Mounted parts location of the MD-097, SS-174T and VC-310 board are not shown.
Pages from 4-113 to 4-116 are not shown.

COVER

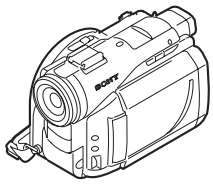
NOTE

5. REPAIR PARTS LIST

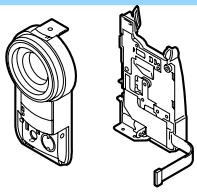
NOTE: Characters A to Z of the electrical parts list indicate location of exploded views in which the desired part is shown.

Link

EXPLODED VIEWS

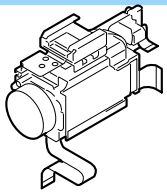


OVERALL SECTION



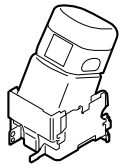
A

F PANEL/ BATTERY PANEL SECTION



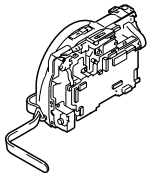
B

LENS SECTION



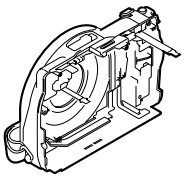
C

EVF SECTION



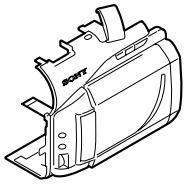
D

MD SECTION



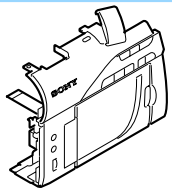
E

CABINET (L) SECTION



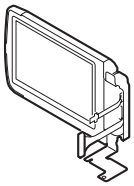
F

CABINET (R) SECTION (DVD300)



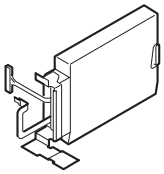
G

CABINET (R) SECTION (DVD200/DVD200E)



H

LCD SECTION (DVD300)



I

LCD SECTION (DVD200)

Link

ELECTRICAL PARTS LIST

ACCESSORIES

CD-429 BOARD B	FP-610 BOARD F G	MA-420 BOARD A
CK-127 BOARD F G	FP-611 BOARD D	PD-188 BOARD H I
FB-220 BOARD F G	FP-612 BOARD I	MD-097 BOARD
FP-608 BOARD E	FP-613 BOARD H	SS-174T BOARD D
FP-609 BOARD E	LB-084 BOARD C	VC-310 BOARD D

COVER

5. REPAIR PARTS LIST

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- CAPACITORS:
  uF: µF
- COILS
  uH: µH
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...
- Abbreviation
  CND : Canadian model
  AUS : Australian model
  EE : East European model
  HK : Hong Kong model
  KR : Korea model

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

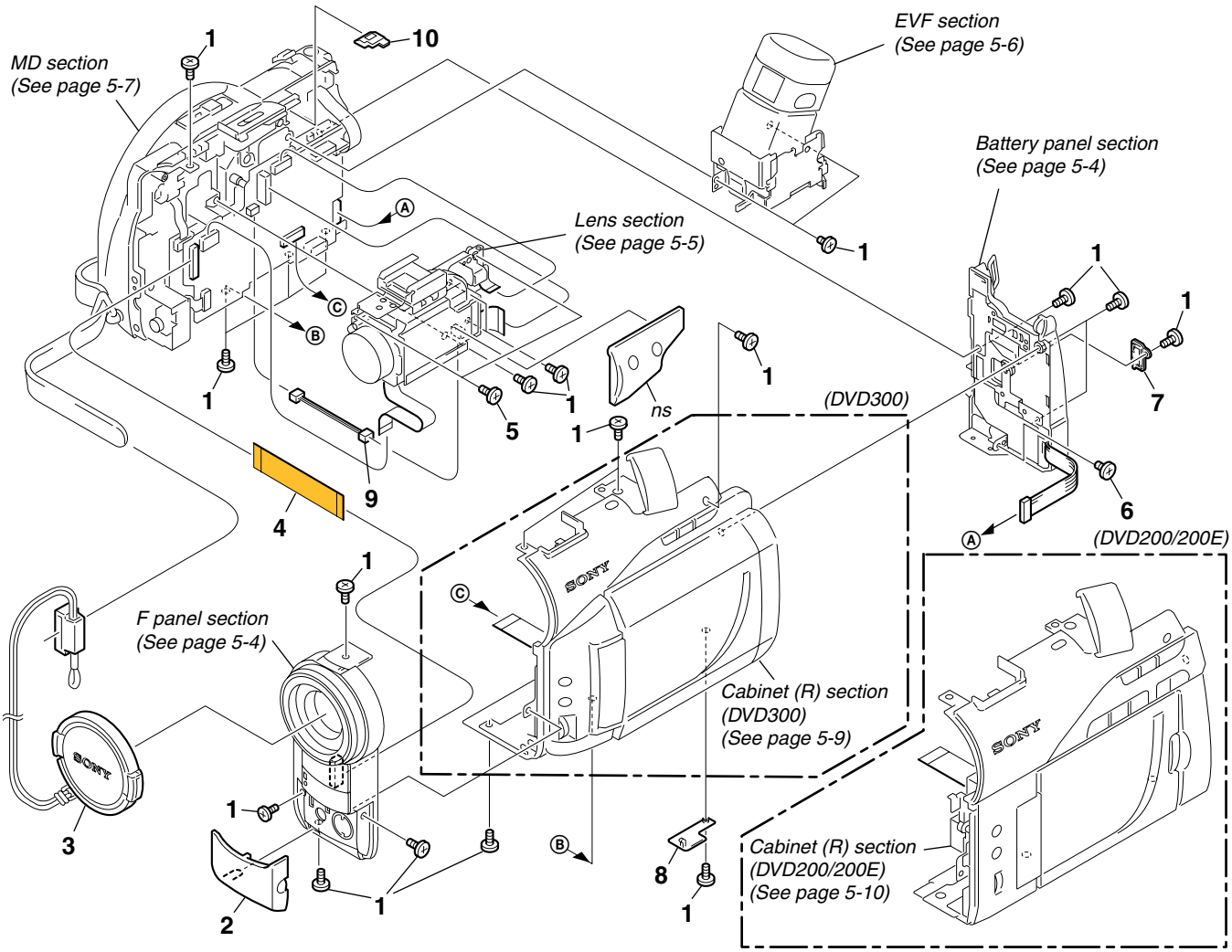
COVER

5. REPAIR PARTS LIST

5-1. EXPLODED VIEWS

5-1-1. OVERALL SECTION

ns : not supplied



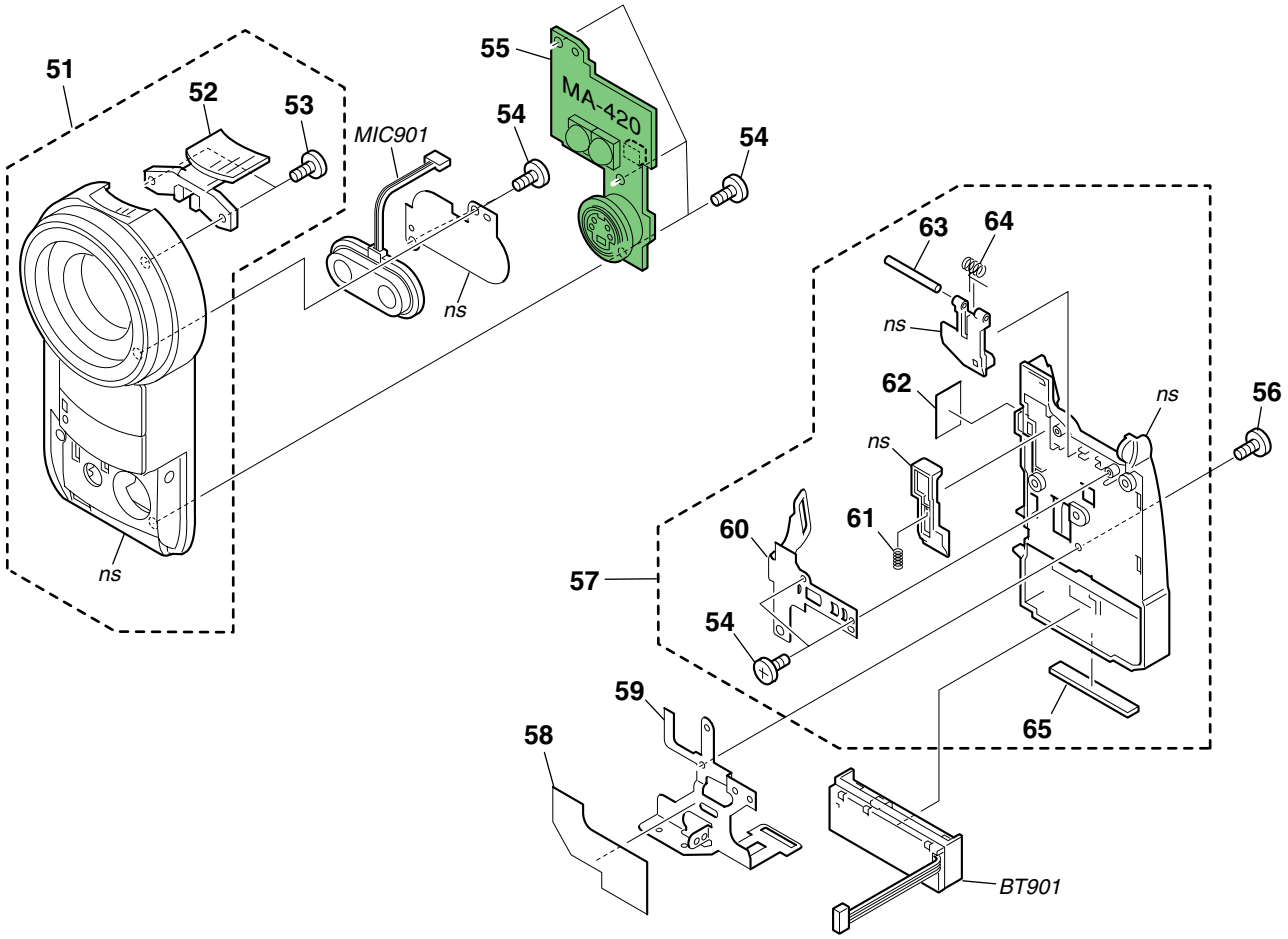
Ref. No.	Part No.	Description
1	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
2	3-084-647-11	COVER (F), JACK (DVD200)
2	3-084-647-21	COVER (F), JACK (DVD300)
2	3-084-647-41	COVER (F), JACK (DVD200E)
3	X-3953-658-1	CAP ASSY, LENS
4	1-688-710-11	FP-605 FLEXIBLE BOARD
5	3-078-890-01	SCREW, TAPPING
6	3-078-889-11	SCREW (M1.7)
7	3-084-659-01	LID (BT), CPC
8	3-084-660-01	LID (BOTTOM), CPC
9	1-962-367-11	HARNESS (CV-068)
10	3-084-667-01	WATER PAKING

COVER

5. REPAIR PARTS LIST

5-1-2. F PANEL/BATTERY PANEL SECTION

ns : not supplied



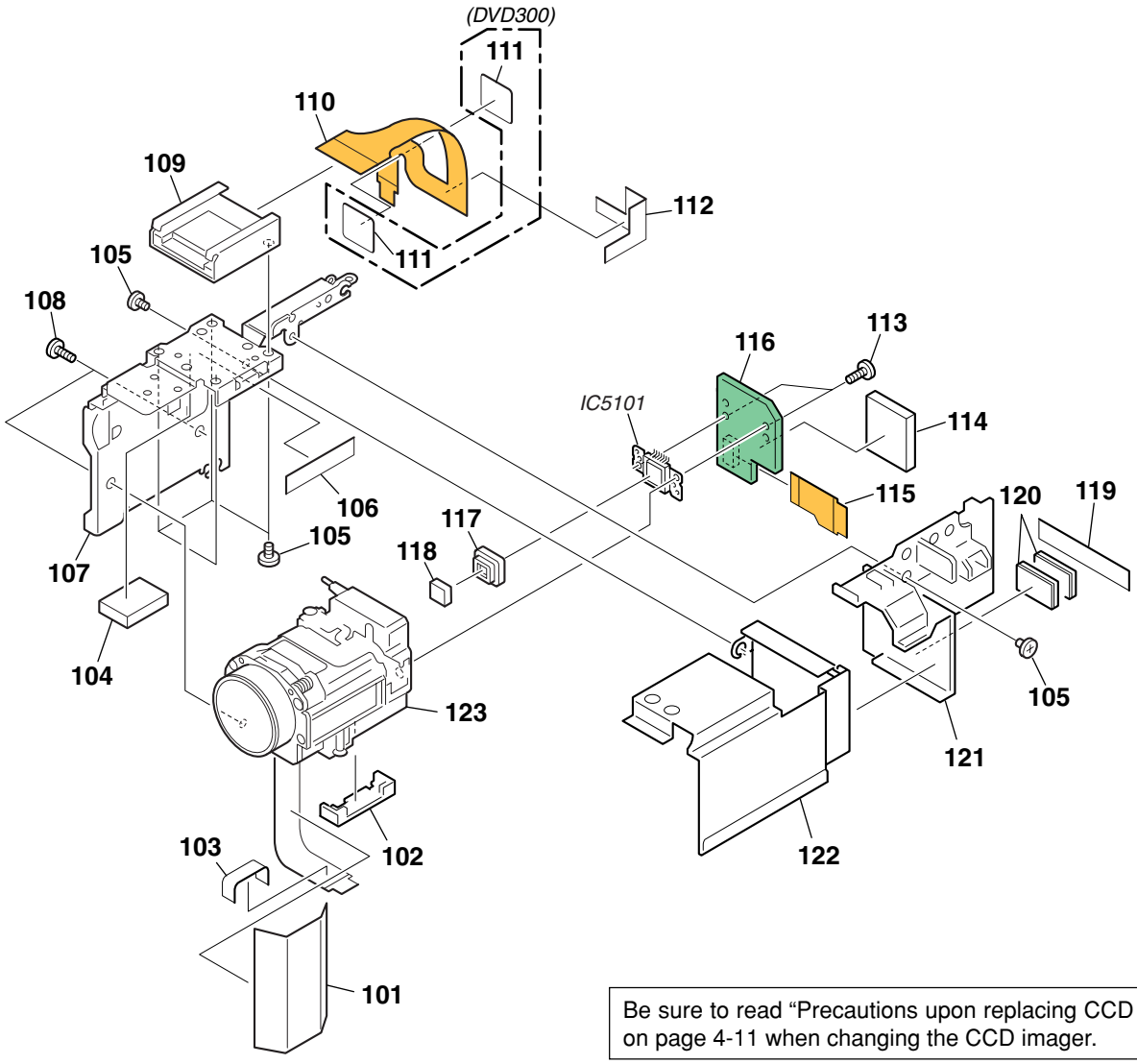
Ref. No.	Part No.	Description
51	X-3953-609-1	PANEL (750) ASSY, FRONT
52	3-084-724-01	PLATE, FRONT HEAT
53	3-055-573-21	SCREW (M1.7), LOCK ACE, P2
54	3-078-890-01	SCREW, TAPPING
55	A-7078-801-A	MA-420 BOARD, COMPLETE
56	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
57	X-3953-600-1	PANEL ASSY, BATTERY
58	3-084-666-01	SHEET, BATT
59	3-084-661-01	BRACKET (LOWER), STRAP

Ref. No.	Part No.	Description
60	3-084-750-01	SHEET METAL (UPPER), STRAP
61	3-968-771-01	SPRING, COMPRESSION
62	3-084-773-01	TAPE (BT)
63	3-968-770-01	SHAFT, BT
64	3-968-768-01	SPRING, LOCK
* 65	3-055-189-01	FOOT (A)
BT901	1-694-772-11	TERMINAL BOARD, BATTERY
MIC901	1-418-351-11	MICROPHONE UNIT

COVER

5. REPAIR PARTS LIST

5-1-3. LENS SECTION



Be sure to read “Precautions upon replacing CCD imager” on page 4-11 when changing the CCD imager.

Ref. No.	Part No.	Description
101	3-084-692-01	SHEET, LENS (650)
102	X-3953-094-2	PROTECTOR ASSY, MR
103	3-087-636-01	SHEET (FPC), SUCTION WATER
104	3-084-691-01	SHEET, LF650 RADIATION
105	3-078-889-11	SCREW (M1.7)
106	3-084-688-01	SHEET (L), SUCTIN WATER
107	3-084-786-01	FRAME (750), LENS
108	3-078-890-01	SCREW, TAPPING
109	1-785-594-11	CONNECTOR (HOT SHOE), OUTER
110	1-688-709-11	FP-604 FLEXIBLE BOARD (DVD200)
110	1-860-323-01	FP-868 FLEXIBLE BOARD (DVD200E/DVD300)
111	3-086-147-01	SHEET, ABSORPTION (DVD300)
112	3-084-689-01	SHEET, HOT COPPER LEAF (DVD200/DVD300)

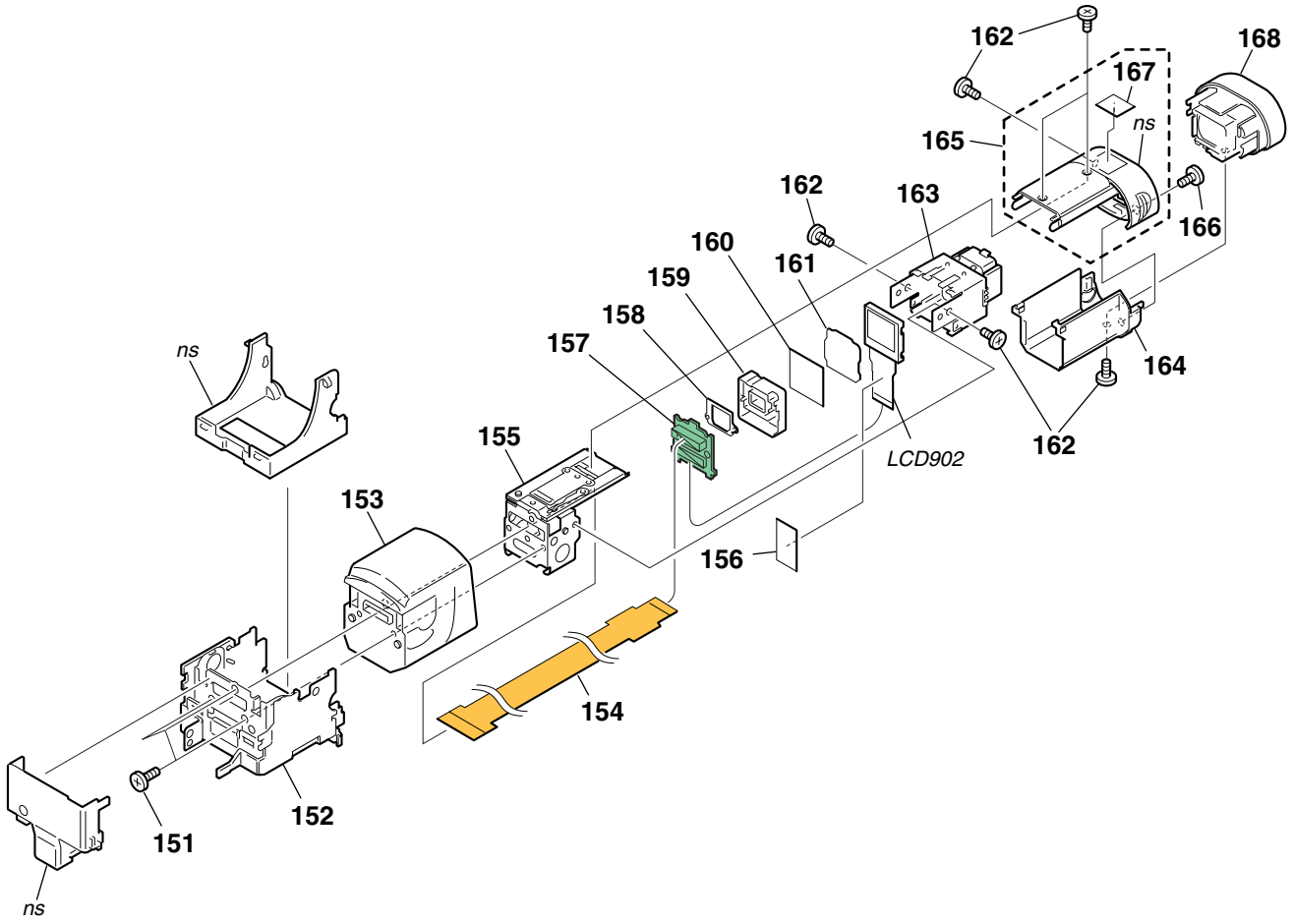
Ref. No.	Part No.	Description
112	3-086-146-01	SHEET, HOT COPPER LEAF (DVD200E)
113	3-080-204-21	SCREW, TAPPING, P2
114	3-084-685-01	SHEET, CD RADIATION
115	1-688-711-11	FP-606 FLEXIBLE BOARD
116	A-7078-816-A	CD-429 (MEGA) BOARD, COMPLETE
117	3-053-973-01	RUBBER (W), SEAL
118	1-758-569-11	FILTER BLOCK, OPTICAL
119	3-084-690-01	SHEET, ADHESIVE, CORE
120	1-469-298-31	FILTER, EMI
121	3-084-343-01	HOLDER, LENS
122	3-084-791-01	HEAT SINK (750), CD
123	A-7111-109-A	751B (CZ) BLOCK ASSEMBLY
IC5101	A-7111-336-A	CCD BLOCK ASSY (CCD IMAGER)

COVER

5. REPAIR PARTS LIST

5-1-4. EVF SECTION

ns : not supplied



Ref. No.	Part No.	Description
151	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
152	X-3953-605-1	HINGE ASSY, VF
153	3-084-760-01	CABINET, VF TILT
154	1-688-708-11	FP-603 FLEXIBLE BOARD
155	X-3953-118-1	SLIDE ASSY, VF
156	3-083-290-01	SHEET VF
157	A-7078-802-A	LB-084 BOARD, COMPLETE
158	3-080-615-01	CUSHION (LB) (40)
159	3-080-618-01	GUIDE (40), LAMP
160	3-080-613-01	ILLUMINATOR (40)

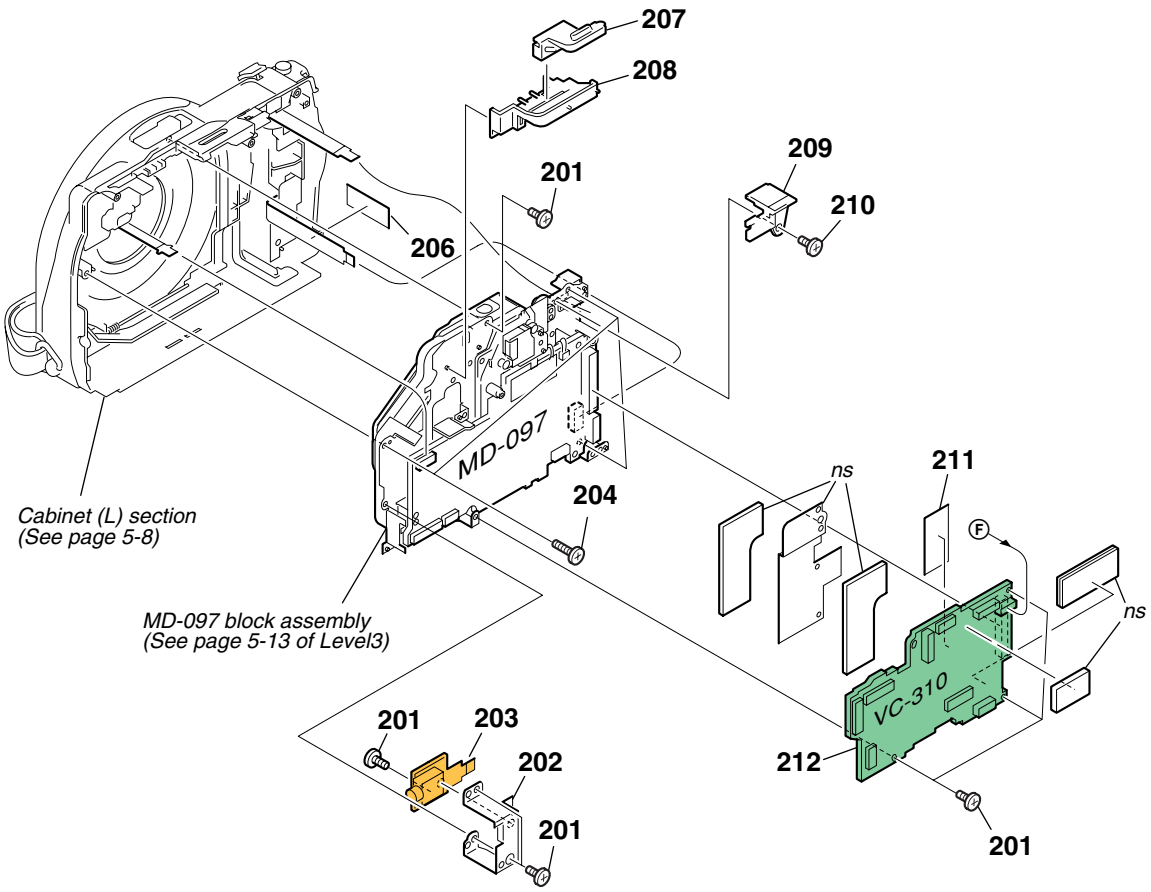
Ref. No.	Part No.	Description
161	3-080-614-01	SHEET (40), PRISM
162	3-080-198-11	SCREW(M1.7),LOCK ACE,P2
163	X-3953-119-1	CABINET ASSY, LCD
164	3-080-617-11	CABINET (LOWER), VF SLIDE
165	X-3953-602-1	CABINET (UPPER) ASSY, VF SLIDE
166	3-078-890-01	SCREW, TAPPING
167	3-074-433-01	LABEL, COLOR (VF)
168	X-3953-603-2	EYE CUP (55) ASSY
LCD902	8-753-036-70	LCX032ANA-5

COVER

5. REPAIR PARTS LIST

5-1-5. MD SECTION

ns : not supplied



Ref. No.	Part No.	Description
201	3-078-889-11	SCREW (M1.7)
202	3-084-658-01	FRAME, JK
203	A-7078-812-A	FP-611 BOARD, COMPLETE (DVD200/DVD200E)
203	A-7078-822-A	FP-611 (35) BOARD, COMPLETE (DVD300)
204	3-080-204-21	SCREW, TAPPING, P2
206	CAUTION	TAPE (0716)
207	3-084-787-01	BASE (750), NS
208	3-084-788-01	KNOB (750), NS
209	3-084-662-01	BLIND, ZOOM
210	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
211	3-087-264-01	SHEET, INSULATING, VC
212	A-7078-815-A	VC-310 (MEGA) BOARD, COMPLETE (DVD200/DVD300) (SERVICE)
212	A-7111-388-A	VC-310 (MEGA P) BOARD, COMPLETE (DVD200E) (SERVICE)

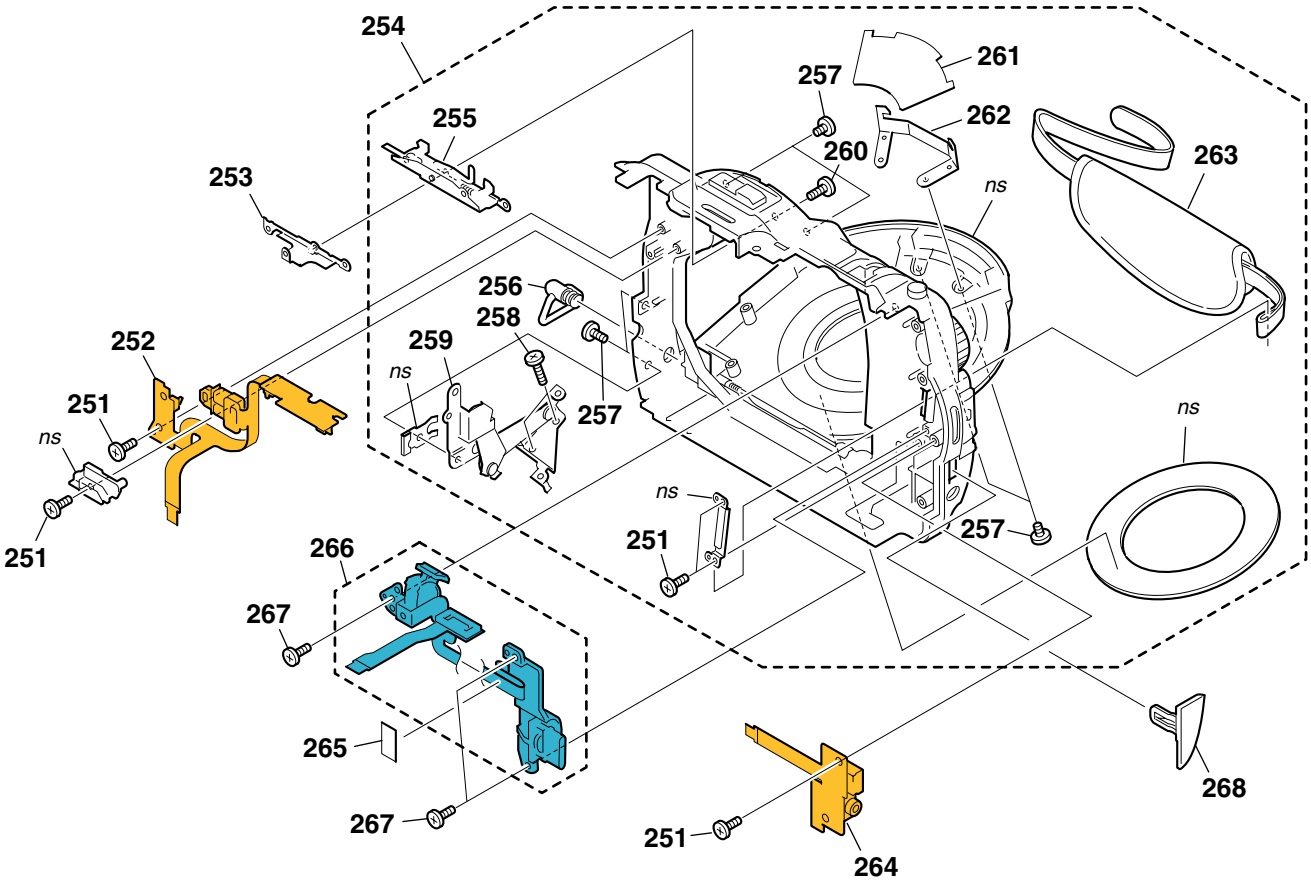
CAUTION :
For the parts of 206 : TAPE (0716) (3-084-668-01) cut WOVEN (T0.25), FABRIC NON (3-076-631-01) into the desired length and use it.

COVER

5. REPAIR PARTS LIST

5-1-6. CABINET (L) SECTION

ns : not supplied



Ref. No.	Part No.	Description
251	3-078-890-01	SCREW, TAPPING
252	A-7078-811-A	FP-609 BOARD, COMPLETE (DVD200/DVD200E)
252	A-7078-821-A	FP-609 (35) BOARD, COMPLETE (DVD300)
253	3-084-664-01	SHEET METAL, PWB RETAINER
254	X-3953-601-3	CABINET (L) ASSY
255	X-3953-598-2	FRAME ASSY, EJECT
256	3-068-457-01	SHAFT, STRAP
257	3-973-497-91	SCREW (M1.7), 0-NO. +P 2
258	3-080-204-01	SCREW, TAPPING, P2
259	X-3953-599-1	HINGE ASSY, D LID

Ref. No.	Part No.	Description
260	3-087-322-01	SCREW (M1.7), EG GRIP, P2
261	3-084-764-01	COVER, D LID
262	3-084-737-01	CLAW, LID LOCK
263	3-084-771-01	BELT, GRIP
264	A-7078-800-A	FP-608 BOARD, COMPLETE (DVD200/DVD200E)
264	A-7078-823-A	FP-608 (35) BOARD, COMPLETE (DVD300)
265	CAUTION	TAPE (0716)
266	1-477-795-11	SWITCH BLOCK, CONTROL (PS-CX5500)
267	3-080-204-21	SCREW, TAPPING, P2
268	3-084-645-01	COVER (L), JACK

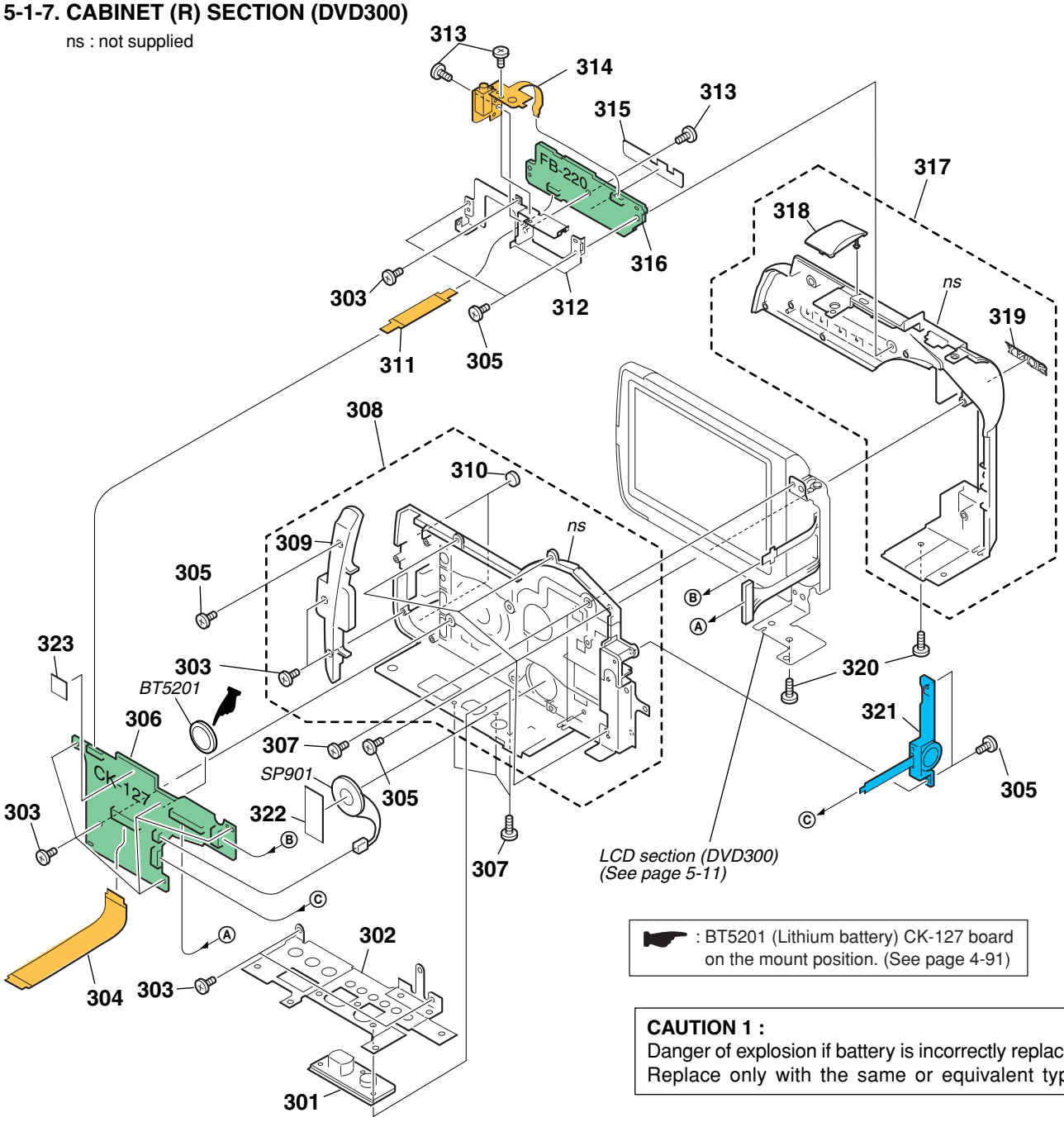
CAUTION :
For the parts of 265 : TAPE (0716) (3-084-668-01) cut WOVEN (T0.25), FABRIC NON (3-076-631-01) into the desired length and use it.

COVER

5. REPAIR PARTS LIST

5-1-7. CABINET (R) SECTION (DVD300)

ns : not supplied



: BT5201 (Lithium battery) CK-127 board on the mount position. (See page 4-91)

CAUTION 1 :
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

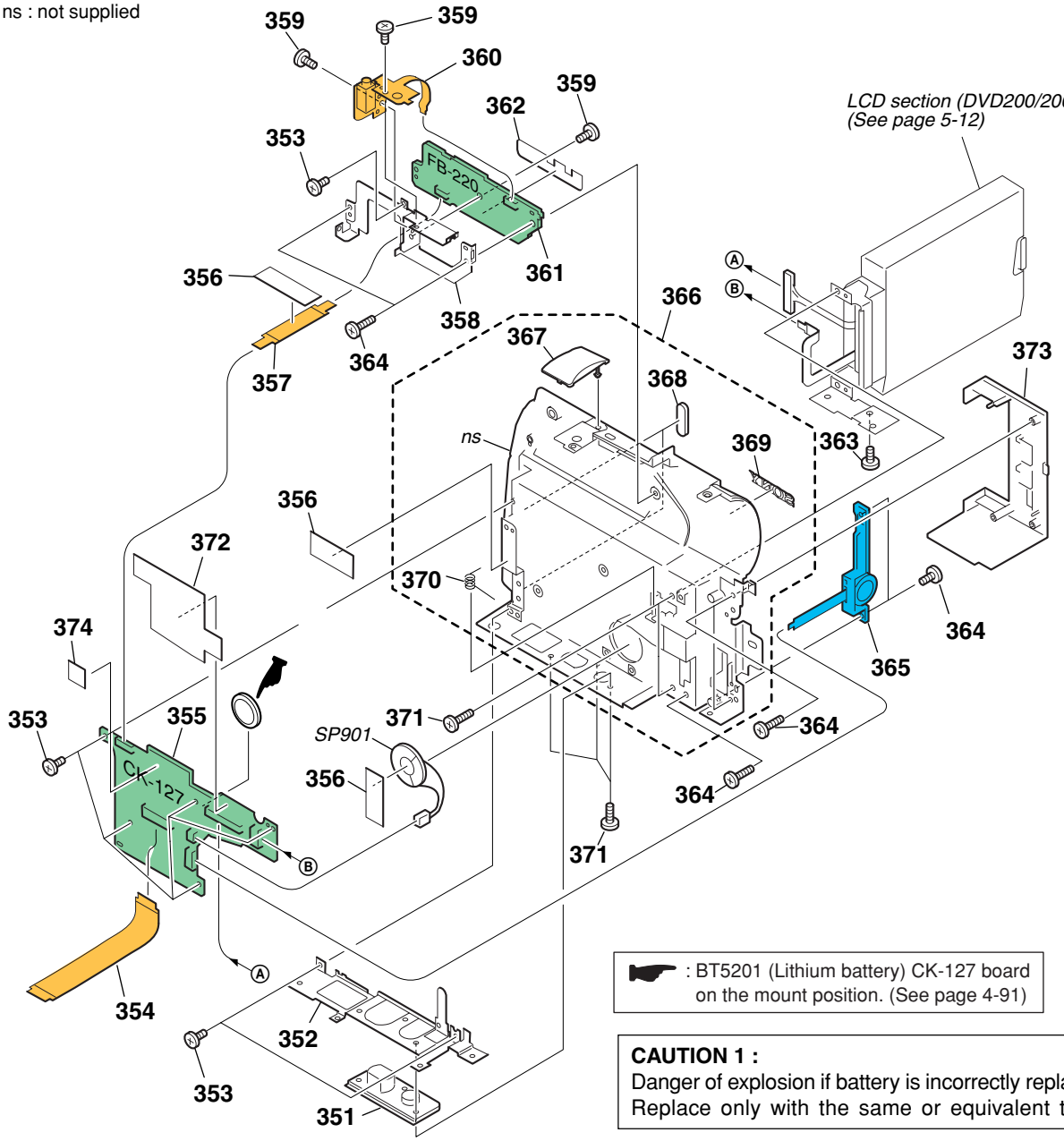
Ref. No.	Part No.	Description
301	3-055-257-11	TRIPOD (LARGE)
302	3-084-804-01	FRAME, TRIPOD LARGE
303	3-078-890-01	SCREW, TAPPING
304	1-688-707-11	FP-602 FLEXIBLE BOARD
305	3-080-204-21	SCREW, TAPPING, P2
306	A-7078-819-A	CK-127 (35) BOARD, COMPLETE
307	3-084-817-31	GRIP
308	X-3953-616-1	CABINET (R) (35) ASSY
309	3-084-801-01	LOCK, PANEL
310	3-959-978-02	CUSHION, PANEL
311	1-688-712-11	FP-607 FLEXIBLE BOARD
312	3-084-697-01	SHEET METAL, FB RETAINER
313	3-078-889-11	SCREW (M1.7)
314	A-7078-824-A	FP-610 (35) BOARD, COMPLETE
315	3-085-252-01	SHEET, FB MUFFLE
316	A-7078-808-A	FB-220 BOARD, COMPLETE
317	X-3953-617-1	CABINET (35) ASSY, SIDE
318	3-084-693-01	COVER (U), JACK
319	4-942-636-01	EMBLEM (NO.3.5), SONY
320	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
321	1-477-796-11	SWITCH BLOCK, CONTROL (KP-CX5500)
322	CAUTION 2	TAPE (0716)
323	3-085-070-01	CD INSULATING SHEET
SP901	1-825-260-21	LOUD SPEAKER (1.6CM)

CAUTION 2 :
For the parts of 322 : TAPE (0716) (3-084-668-01) cut WOVEN (T0.25), FABRIC NON (3-076-631-01) into the desired length and use it.

COVER

5-1-8. CABINET (R) SECTION (DVD200/DVD200E)

ns : not supplied



: BT5201 (Lithium battery) CK-127 board on the mount position. (See page 4-91)

CAUTION 1 :
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

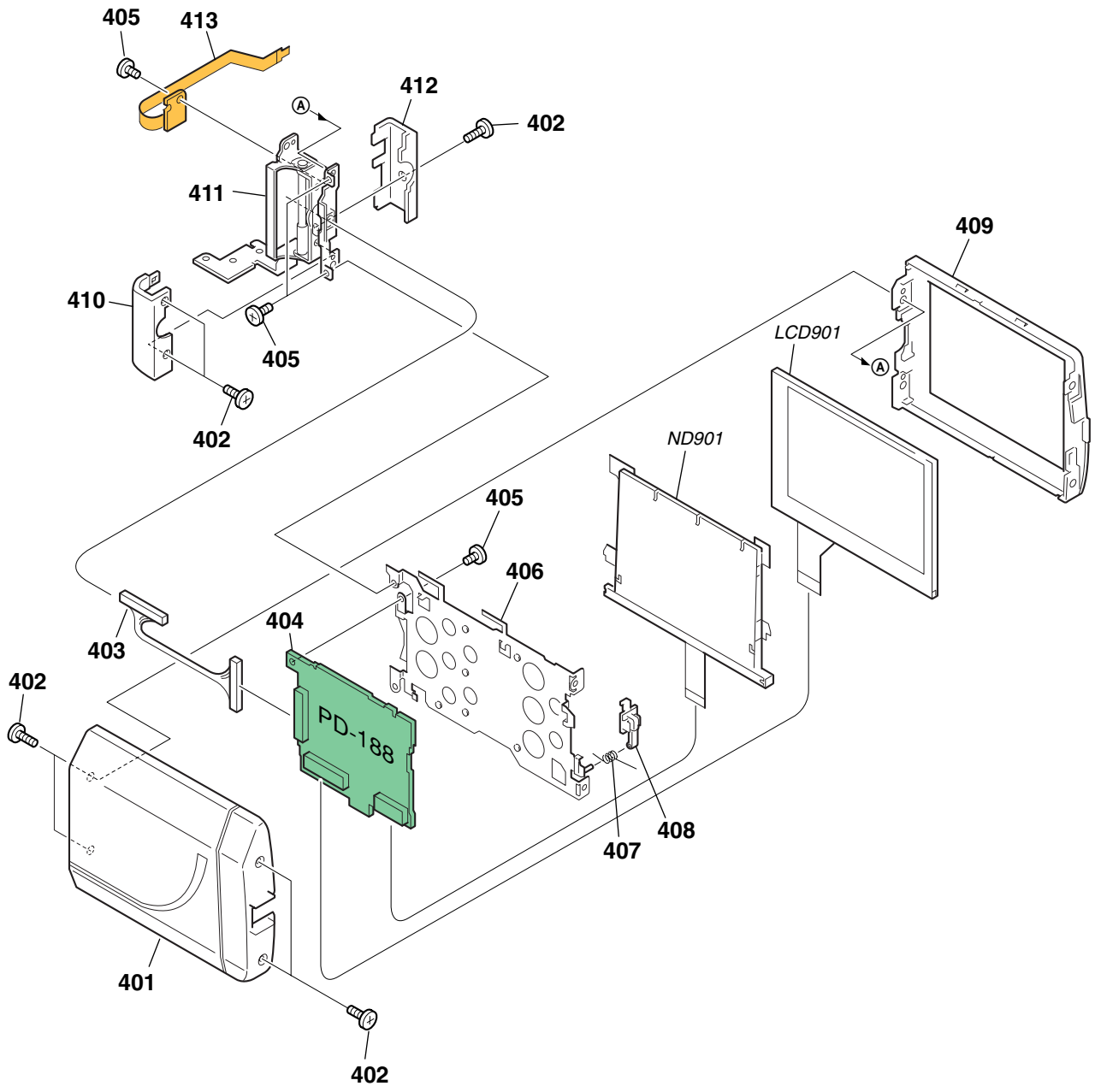
Ref. No.	Part No.	Description
351	3-055-257-11	TRIPOD (LARGE)
352	X-3953-607-1	FRAME (25) ASSY, BOTTOM
353	3-078-890-01	SCREW, TAPPING
354	1-688-707-11	FP-602 FLEXIBLE BOARD
355	A-7078-807-A	CK-127 (25) BOARD, COMPLETE
356	CAUTION 2	TAPE (0716)
357	1-688-712-11	FP-607 FLEXIBLE BOARD
358	3-084-697-01	SHEET METAL, FB RETAINER
359	3-078-889-11	SCREW (M1.7)
360	A-7078-809-A	FP-610 BOARD, COMPLETE
361	A-7078-808-A	FB-220 BOARD, COMPLETE
362	3-085-252-01	SHEET, FB MUFFLE
363	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
364	3-080-204-21	SCREW, TAPPING, P2
365	1-477-796-11	SWITCH BLOCK, CONTROL (KP-CX5500)
366	X-3953-612-1	CABINET (R) (25M) ASSY (DVD200)
366	X-3953-639-2	CABINET (R) (25M) ASSY (DVD200E)
367	3-084-693-01	COVER (U), JACK
368	3-084-706-01	CUSHION (25), PANEL
369	4-942-636-01	EMBLEM (NO.3.5), SONY
370	3-084-696-01	SPRING, HINGE BLIND
371	3-084-817-31	GRIP
372	CAUTION 2	TAPE (HS)
373	X-3953-606-1	CABINET (25) ASSY, SIDE
374	3-085-070-01	SHEET, INSULATING , CD
SP901	1-825-260-21	LOUD SPEAKER (1.6CM)

CAUTION 2 :
For the parts of 356 : TAPE (0716) (3-084-668-01) and 372 : TAPE (HS) (3-084-810-01) cut WOVEN (T0.25), FABRIC NON (3-076-631-01) into the desired length and use it.

COVER

5. REPAIR PARTS LIST

5-1-9. LCD SECTION (DVD300)



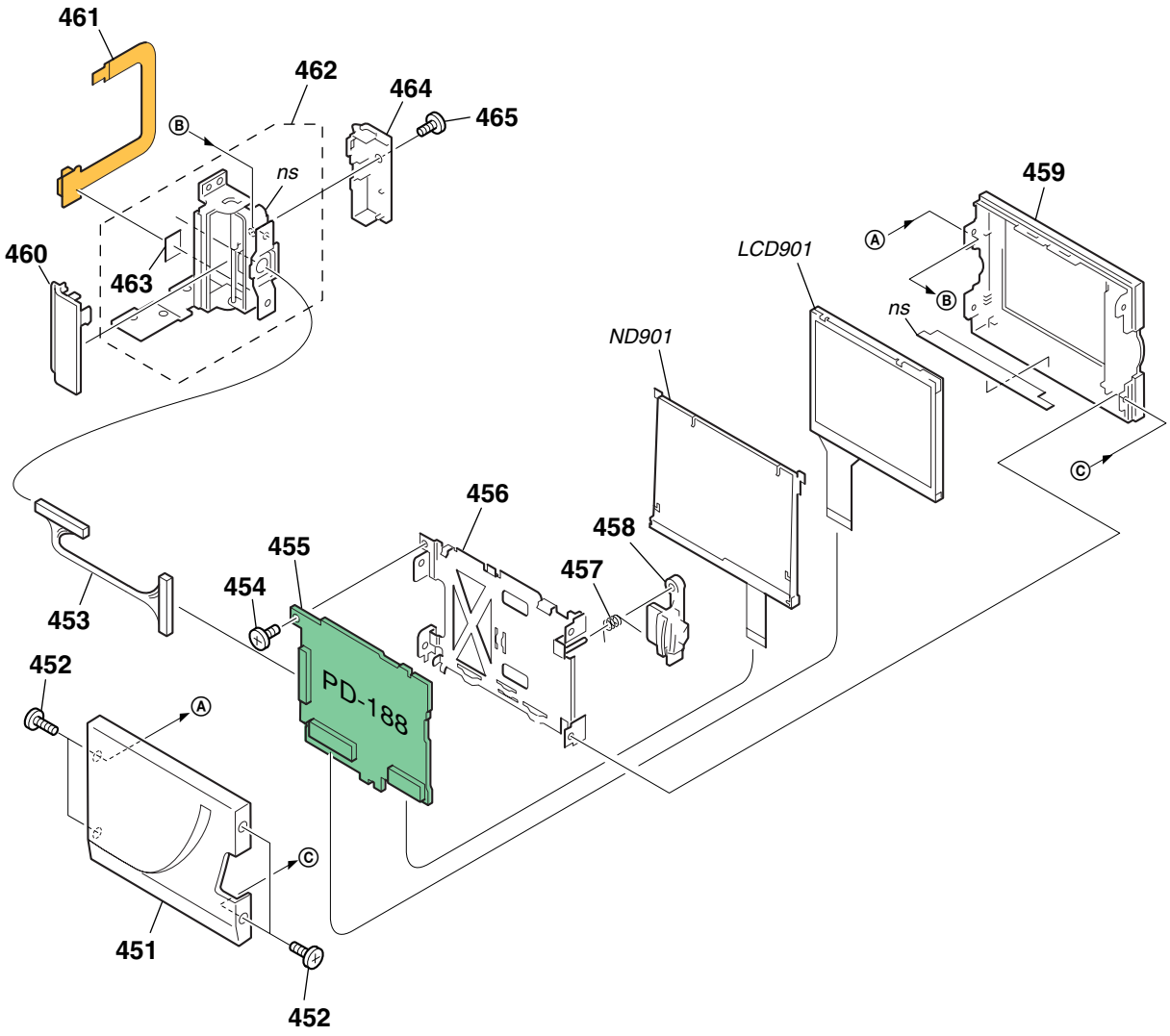
Ref. No.	Part No.	Description
401	X-3953-618-1	CABINET (C) (35) ASSY, P
402	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
403	1-962-365-12	HARNESS (PV-019)
404	A-7078-818-A	PD-188 (35) BOARD, COMPLETE
405	3-078-889-11	SCREW (M1.7)
406	X-3953-614-1	FRAME (35) ASSY, P
407	3-084-919-01	SPRING (OPEN), TORSION
408	3-084-795-01	BUTTON, OPEN

Ref. No.	Part No.	Description
409	3-083-281-01	CABINET (M) (35), P
410	3-083-282-01	COVER (O) (35), HINGE
411	X-3953-615-1	HINGE (35) ASSY, LCD
412	3-083-283-01	COVER (U) (35), HINGE
413	A-7078-820-A	FP-613 BOARD, COMPLETE
LCD901	8-753-051-00	ACX310AK-J
⚠ND901	1-477-758-11	BLOCK LIGHT GUIDE PLATE (3.5)

Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

5-1-10. LCD SECTION (DVD200)

ns : not supplied



Ref. No.	Part No.	Description
451	X-3953-610-1	CABINET (C) (25M) ASSY, P
452	3-087-322-01	SCREW (M1.7), EG GRIP, P2
453	1-962-364-12	HARNESS (PV-018)
454	3-078-889-11	SCREW (M1.7)
455	A-7078-799-A	PD-188 (25) BOARD, COMPLETE
456	X-3953-594-1	FRAME (25) ASSY, P
457	3-084-782-01	SPRING, P LOCK
458	3-084-785-01	BUTTON, P LOCK
459	3-083-291-01	CABINET (M) (25), P

Ref. No.	Part No.	Description
460	3-083-293-01	COVER (O) (25), HINGE
461	A-7078-810-A	FP-612 BOARD, COMPLETE
462	X-3953-595-1	HINGE (25) ASSY, LCD
463	3-084-710-01	SHEET, ADHESIVE, PR
464	3-083-294-01	COVER (U) (25), HINGE
465	3-973-497-91	SCREW (M1.7), 0-NO. +P 2
LCD901	8-753-052-14	ACX307AKA-J
⚠ND901	1-477-756-31	BLOCK LIGHT GUIDE PLATE (2.5)

Exploded view and parts list of MD-097 BLOCK are not shown. Page 5-13 and 5-14 are not shown.

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

5-2. ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description			
	A-7078-816-A	CD-429 (MEGA) BOARD, COMPLETE			
		**********			
		(IC5101 is not included in this complete board.)			
		< CAPACITOR >			
C5101	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5102	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5103	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5105	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5106	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5108	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5110	1-113-987-11	TANTAL. CHIP	4.7uF	20%	25V
C5111	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C5112	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5113	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5114	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
C5116	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		< CONNECTOR >			
CN5101	1-784-421-11	CONNECTOR, FFC/FPC (ZIF) 27P			
CN5102	1-794-375-21	PIN, CONNECTOR 2P			
		< FERRITE BEAD >			
FB5101	1-414-445-11	FERRITE	0uH		
FB5102	1-414-554-21	FERRITE	0uH		
		< IC >			
IC5101	A-7111-336-A	IC CCD BLOCK ASSY (CCD IMAGER)			
IC5102	6-701-755-01	IC AD80017AJRURL			
		< COIL >			
L5101	1-469-528-91	INDUCTOR	100uH		
L5102	1-469-525-91	INDUCTOR	10uH		
		< TRANSISTOR >			
Q5101	6-550-119-01	TRANSISTOR	DTC144EMT2L		
		< RESISTOR >			
R5101	1-218-990-11	SHORT CHIP	0		
R5102	1-218-990-11	SHORT CHIP	0		
R5105	1-218-941-81	RES-CHIP	100	5%	1/16W
R5106	1-218-941-81	RES-CHIP	100	5%	1/16W
	A-7078-807-A	CK-127 (25) BOARD, COMPLETE (DVD200/DVD200E)			
	A-7078-819-A	CK-127 (35) BOARD, COMPLETE (DVD300)			
		**********			
		< BATTERY >			
⚠BT5201	1-756-128-11	BATTERY, LITHIUM (SECONDARY)			

Ref. No.	Part No.	Description			
		< CONNECTOR >			
CN5201	1-784-423-21	CONNECTOR, FFC/FPC (ZIF) 39P			
CN5202	1-794-997-11	PIN, CONNECTOR 20P			
CN5203	1-778-506-21	PIN, CONNECTOR (PC BOARD) 2P			
CN5204	1-691-344-11	CONNECTOR, FFC/FPC (ZIF) 6P (DVD200/DVD200E)			
CN5205	1-766-336-21	CONNECTOR, FFC/FPC 6P			
CN5206	1-766-336-21	CONNECTOR, FFC/FPC 6P			
CN5207	1-691-344-11	CONNECTOR, FFC/FPC (ZIF) 6P (DVD300)			
		< DIODE >			
D5203	8-719-062-16	DIODE 01ZA8.2(TPL3)			
D5204	8-719-062-16	DIODE 01ZA8.2(TPL3)			
D5205	8-719-062-16	DIODE 01ZA8.2(TPL3)			
D5207	8-719-062-16	DIODE 01ZA8.2(TPL3)			
D5208	8-719-056-85	DIODE UDZSTE-178.2B			
D5209	8-719-062-16	DIODE 01ZA8.2(TPL3)			
		< RESISTOR >			
R5201	1-218-990-11	SHORT CHIP	0		
R5204	1-218-953-11	RES-CHIP	1K	5%	1/16W
R5206	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R5207	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R5208	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R5210	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R5211	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R5212	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R5215	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R5218	1-218-960-11	RES-CHIP	3.9K	5%	1/16W
R5222	1-218-964-11	RES-CHIP	8.2K	5%	1/16W
R5223	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R5224	1-218-960-11	RES-CHIP	3.9K	5%	1/16W
R5225	1-218-964-11	RES-CHIP	8.2K	5%	1/16W
R5226	1-218-990-11	SHORT CHIP	0		
R5227	1-218-949-11	RES-CHIP	470	5%	1/16W
		< SWITCH >			
S5201	1-786-157-11	SWITCH, TACTILE (EDIT)			
S5203	1-786-157-11	SWITCH, TACTILE (RESET)			
S5204	1-786-157-11	SWITCH, TACTILE (VOL+)			
S5205	1-786-157-11	SWITCH, TACTILE (VOL-)			
S5206	1-786-157-11	SWITCH, TACTILE (DISPLAY/BATT INFO)			
S5207	1-762-805-21	SWITCH, PUSH (1 KEY) (PANEL_CLOSE) (DVD200/DVD200E)			
S5208	1-762-805-21	SWITCH, PUSH (1 KEY) (PANEL_CLOSE) (DVD300)			
S5209	1-786-157-11	SWITCH, TACTILE (VISUAL INDEX)			
S5210	1-786-157-11	SWITCH, TACTILE (SETUP)			
S5211	1-786-157-11	SWITCH, TACTILE (REC ●)			
S5212	1-786-157-11	SWITCH, TACTILE (▲ UP)			
S5213	1-786-157-11	SWITCH, TACTILE (◀ LEFT)			
S5214	1-786-157-31	TACTILE SWITCH (ENTER)			
S5215	1-786-157-11	SWITCH, TACTILE (▶ RIGHT)			
S5216	1-786-157-11	SWITCH, TACTILE (▼ DOWN)			

Be sure to read “Precautions upon replacing CCD imager” on page 4-11 when changing the CCD imager.

CAUTION :
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note :
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

FB-220 **FP-608** **FP-609** **FP-610** **FP-611** **FP-612** **FP-613**

Ref. No.	Part No.	Description			
	A-7078-808-A	FB-220 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C5301	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< CONNECTOR >			
CN5301	1-691-344-11	CONNECTOR, FFC/FPC (ZIF) 6P			
CN5302	1-691-344-11	CONNECTOR, FFC/FPC (ZIF) 6P			
		< DIODE >			
D5301	8-719-062-16	DIODE 01ZA8.2(TPL3)			
		< RESISTOR >			
R5301	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R5302	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R5303	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R5304	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R5305	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R5306	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R5308	1-218-960-11	RES-CHIP	3.9K	5%	1/16W
R5309	1-216-864-11	METAL CHIP	0	5%	1/16W
R5310	1-216-864-11	METAL CHIP	0	5%	1/16W
		< SWITCH >			
S5301	1-786-157-11	SWITCH, TACTILE (BACK LIGHT)			
S5302	1-786-157-11	SWITCH, TACTILE (■ STOP)			
S5303	1-786-157-11	SWITCH, TACTILE (FADER)			
S5304	1-786-157-11	SWITCH, TACTILE (⏮ PREV)			
S5305	1-786-157-11	SWITCH, TACTILE (REVIEW)			
S5306	1-786-157-11	SWITCH, TACTILE (▶ PLAY(PLAYBACK))			
S5308	1-786-157-11	SWITCH, TACTILE (⏭ NEXT)			
S5310	1-786-157-11	SWITCH, TACTILE (⏸ PAUSE)			
		< VARISTOR >			
VD5301	1-801-862-11	VARISTOR, CHIP (1608)			
VD5302	1-801-862-11	VARISTOR, CHIP (1608)			
	A-7078-800-A	FP-608 BOARD, COMPLETE (DVD200/DVD200E)			
	A-7078-823-A	FP-608 (35) BOARD, COMPLETE (DVD300)			
		**********			
		< CONNECTOR >			
CN9001	1-794-962-11	CONNECTOR, SQUARE TYPE(USB 5P)			
		< JACK >			
J9001	1-793-995-21	JACK, SUPER SMALL TYPE ((LANC))			
		< RESISTOR >			
R9002	1-216-864-11	METAL CHIP	0	5%	1/16W
R9003	1-216-296-11	SHORT CHIP	0		
	A-7078-811-A	FP-609 BOARD, COMPLETE (DVD200/DVD200E)			
	A-7078-821-A	FP-609 (35) BOARD, COMPLETE (DVD300)			
		**********			
		< DIODE >			
D9051	8-719-073-33	DIODE CL-165HR/YG-D-T			
		< RESISTOR >			
R9051	1-216-809-11	METAL CHIP	100	5%	1/16W
R9052	1-216-816-11	METAL CHIP	390	5%	1/16W
		< RELAY >			
RY9051	1-454-583-11	SOLENOID, PLUNGER			
		< SWITCH >			
S9051	1-762-805-21	SWITCH, PUSH (1KEY) (LID OPEN)			
S9052	1-786-179-31	SWITCH, PUSH (1KEY) (LID OPEN)			
S9053	1-786-180-31	SWITCH, PUSH (1KEY) (OPEN)			
	A-7078-809-A	FP-610 BOARD, COMPLETE (DVD200/DVD200E)			
	A-7078-824-A	FP-610 (35) BOARD, COMPLETE (DVD300)			
		**********			
		< FERRITE BEAD >			
FB9101	1-500-444-11	FERRITE	0uH		
FB9102	1-500-444-11	FERRITE	0uH		
		< JACK >			
J9101	1-691-737-41	JACK (SMALL TYPE) (MIC (PLUG IN POWER))			
		< SWITCH >			
S9101	1-786-157-11	SWITCH, TACTILE (SUPER NS/COLOR SLOW S)			
	A-7078-812-A	FP-611 BOARD, COMPLETE (DVD200/DVD200E)			
	A-7078-822-A	FP-611 (35) BOARD, COMPLETE (DVD300)			
		**********			
		< DIODE >			
D9151	8-719-062-16	DIODE 01ZA8.2(TPL3)			
D9152	8-719-062-16	DIODE 01ZA8.2(TPL3)			
		< FERRITE BEAD >			
FB9151	1-500-444-11	FERRITE	0uH		
FB9152	1-500-444-11	FERRITE	0uH		
FB9153	1-500-444-11	FERRITE	0uH		
		< JACK >			
J9151	1-778-040-11	JACK, SMALL TYPE (AUDIO/VIDEO)			
	A-7078-810-A	FP-612 BOARD, COMPLETE (DVD200/DVD200E)			
		**********			
		< SWITCH >			
S9201	1-771-338-31	SWITCH, PUSH (PANEL REVERSE)			
	A-7078-820-A	FP-613 BOARD, COMPLETE (DVD300)			
		**********			
S9251	1-771-039-31	SWITCH, PUSH (PANEL REVERSE)			

Ref. No.	Part No.	Description			
	A-7078-802-A	LB-084 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C5601	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5602	1-164-505-11	CERAMIC CHIP	2.2uF		16V
		< CONNECTOR >			
CN5601	1-779-334-11	CONNECTOR, FFC/FPC 20P			
CN5602	1-691-354-21	CONNECTOR, FFC/FPC (ZIF) 16P			
		< DIODE >			
D5602	6-500-375-01	DIODE NSCW455T-TC9			
		< IC >			
IC5601	8-759-581-11	IC NJM2125F(TE2)			
		< TRANSISTOR >			
Q5602	8-729-054-48	TRANSISTOR	N1B04FE-Y/GR(TPLR3)		
		< RESISTOR >			
R5603	1-208-941-11	METAL CHIP	180K	0.5%	1/16W
R5604	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R5605	1-218-956-11	RES-CHIP	1.8K	5%	1/16W
R5606	1-216-839-11	METAL CHIP	33K	5%	1/16W
R5607	1-211-983-11	METAL CHIP	39	0.5%	1/10W
	A-7078-801-A	MA-420 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C5503	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
		< CONNECTOR >			
CN5501	1-778-507-21	PIN, CONNECTOR (PC BOARD) 4P			
CN5503	1-764-529-11	CONNECTOR, FFC/FPC (ZIF) 22P			
		< DIODE >			
D5501	8-719-056-85	DIODE UDZSTE-178.2B			
D5503	6-500-512-01	DIODE CL-330IRS-X-TU			
D5504	8-719-073-01	DIODE MA111-(K8).S0			
D5507	8-719-064-07	DIODE SML-310LTT86			
		< FERRITE BEAD >			
FB5501	1-469-179-21	FERRITE	0uH		
FB5502	1-469-179-21	FERRITE	0uH		
FB5503	1-469-179-21	FERRITE	0uH		
FB5504	1-469-179-21	FERRITE	0uH		
		< IC >			
IC5501	8-742-221-00	HYB IC SBX3055-01			
		< JACK >			
J5501	1-778-518-11	CONNECTOR, EXTERNAL (S VIDEO)			

Ref. No.	Part No.	Description			
		< RESISTOR >			
R5501	1-216-864-11	METAL CHIP	0	5%	1/16W
R5502	1-216-864-11	METAL CHIP	0	5%	1/16W
R5503	1-216-864-11	METAL CHIP	0	5%	1/16W
R5504	1-216-805-11	METAL CHIP	47	5%	1/16W
R5505	1-216-864-11	METAL CHIP	0	5%	1/16W
R5506	1-218-951-11	RES-CHIP	680	5%	1/16W
R5507	1-216-864-11	METAL CHIP	0	5%	1/16W
R5508	1-218-990-11	SHORT CHIP	0		
		< SENSOR >			
SE5501	1-476-807-31	SENSOR, ANGULAR VELOCITY (YAW)			
SE5502	1-476-807-41	SENSOR, ANGULAR VELOCITY (PITCH)			
		< VARISTOR >			
VD5501	1-803-974-21	VARISTOR, CHIP (1608)			
VD5502	1-803-974-21	VARISTOR, CHIP (1608)			
	A-7078-799-A	PD-188 (25) BOARD, COMPLETE (DVD200/DVD200E)			
	A-7078-818-A	PD-188 (35) BOARD, COMPLETE (DVD300)			
		**********			
		< CAPACITOR >			
C6001	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6002	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C6003	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C6004	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C6005	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C6007	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6008	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C6009	1-135-177-21	TANTALUM CHIP	1uF	20%	20V
C6010	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C6011	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
C6012	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6013	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C6014	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C6015	1-164-870-11	CERAMIC CHIP	68PF	5%	50V (DVD200/DVD200E)
C6015	1-164-874-11	CERAMIC CHIP	100PF	5%	50V (DVD300)
C6016	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C6017	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C6018	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C6019	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C6022	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6023	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C6024	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C6101	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C6103	1-164-657-11	CERAMIC CHIP	0.015uF	10%	50V
C6104	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
⚠C6105	1-100-371-11	CERAMIC CHIP	12PF	5%	3.15KV

Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note :
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			
		< CONNECTOR >			
CN6001	1-815-031-11	CONNECTOR, FFC/FPC (ZIF) 24P			
CN6101	1-764-709-11	CONNECTOR, FFC/FPC (LIF) 10P			
CN6201	1-794-997-11	PIN, CONNECTOR 20P			
		< DIODE >			
D6001	8-719-084-47	DIODE 1SV290(TPL3)			
D6003	8-719-050-42	DIODE RD3.3UM-T1B			
D6103	8-719-073-01	DIODE MA111-(K8).S0			
D6104	8-719-059-47	DIODE PG1111R-TR			
		< FERRITE BEAD >			
FB6001	1-414-760-21	FERRITE 0uH			
FB6002	1-414-760-21	FERRITE 0uH			
		< IC >			
IC6001	8-752-109-08	IC CXA3289BR-T4			
IC6002	8-752-407-33	IC CXD3512R-T4 (DVD200)			
IC6002	8-752-409-15	IC CXD3516R-T4 (DVD300)			
IC6101	8-759-564-49	IC TC7W53FU(TE12R)			
IC6102	8-759-075-70	IC TA75S393F-TE85R			
		< COIL >			
L6001	1-469-525-91	INDUCTOR 10uH			
L6002	1-412-949-21	INDUCTOR 6.8uH			
L6101	1-428-878-11	INDUCTOR 82uH			
		< TRANSISTOR >			
Q6001	8-729-054-48	TRANSISTOR N1B04FE-Y/GR(TPLR3)			
Q6002	8-729-054-48	TRANSISTOR N1B04FE-Y/GR(TPLR3)			
Q6003	6-550-234-01	TRANSISTOR UNR32A300LS0			
Q6004	6-550-232-01	TRANSISTOR 2SA207800LS0			
Q6005	6-550-232-01	TRANSISTOR 2SA207800LS0			
Q6101	6-550-234-01	TRANSISTOR UNR32A300LS0			
Q6102	6-550-065-01	TRANSISTOR CPH5504-TL-E			
Q6104	8-729-054-48	TRANSISTOR RN4983FE(TPLR3)			
		< RESISTOR >			
R6001	1-208-931-11	METAL CHIP	68K	0.5%	1/16W
R6002	1-218-985-11	RES-CHIP	470K	5%	1/16W
R6003	1-218-953-11	RES-CHIP	1K	5%	1/16W
R6004	1-218-953-11	RES-CHIP	1K	5%	1/16W
R6006	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
R6007	1-218-973-11	RES-CHIP	47K	5%	1/16W
R6008	1-218-973-11	RES-CHIP	47K	5%	1/16W
R6009	1-218-975-11	RES-CHIP	68K	5%	1/16W
R6010	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6011	1-218-975-11	RES-CHIP	68K	5%	1/16W
R6012	1-218-989-11	RES-CHIP	1M	5%	1/16W
R6013	1-218-977-11	RES-CHIP	100K	5%	1/16W
R6014	1-218-965-11	RES-CHIP	10K	5%	1/16W
R6015	1-218-965-11	RES-CHIP	10K	5%	1/16W
R6016	1-218-953-11	RES-CHIP	1K	5%	1/16W
R6017	1-218-973-11	RES-CHIP	47K	5%	1/16W
R6018	1-218-966-11	RES-CHIP	12K	5%	1/16W
R6019	1-218-989-11	RES-CHIP	1M	5%	1/16W
R6020	1-218-975-11	RES-CHIP	68K	5%	1/16W
R6021	1-218-979-11	RES-CHIP	150K	5%	1/16W

Ref. No.	Part No.	Description			
R6022	1-208-957-11	RES-CHIP	820K	5%	1/16W
R6023	1-218-990-11	SHORT CHIP	0		
R6103	1-218-965-11	RES-CHIP	10K	5%	1/16W
R6104	1-218-980-11	RES-CHIP	180K	5%	1/16W
R6105	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6106	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R6107	1-218-965-11	RES-CHIP	10K	5%	1/16W (DVD200/DVD200E)
R6107	1-218-970-11	RES-CHIP	27K	5%	1/16W (DVD300)
R6108	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6109	1-218-941-81	RES-CHIP	100	5%	1/16W
R6110	1-218-949-11	RES-CHIP	470	5%	1/16W
		< COMPOSITION CIRCUIT BLOCK >			
RB6001	1-234-372-21	RES, NETWORK 100X4	(1005)		
		< TRANSFORMER >			
⚠T6101	1-435-786-31	TRANSFORMER, INVERTER (DVD200/DVD200E)			
⚠T6101	1-437-472-11	TRANSFORMER, INVERTER (DVD300)			

A-7078-804-A MD-097 BOARD, COMPLETE
****

A-7078-805-A SS-174T BOARD, COMPLETE
****

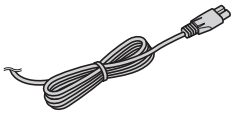
A-7078-815-A VC-310 (MEGA) BOARD, COMPLETE
(DVD200:US,CND,E(CX5520),KR/DVD300)
A-7111-388-A VC-310 (MEGA P) BOARD, COMPLETE
(DVD200:AEP,UK,E(CX5521),HK,AUS)
****

Electrical parts list of the MD-097, SS-174T, and VC-310 board are not shown. Pages from 5-19 to 5-34 are not shown.

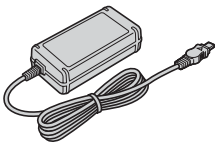
Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Checking supplied accessories.

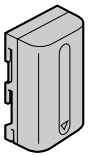
Make sure that the following accessories are supplied with your camcorder.



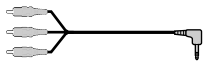
Power cord (Main lead)(1)
(AEP, EE, E model)
⚠ 1-769-608-11
Power cord (Main lead)(1)
(AUS model)
⚠ 1-696-819-21
Power cord (Main lead)(1)
(KR model)
⚠ 1-776-985-11
Power cord (Main lead)(1)
(UK, HK model)
⚠ 1-783-374-11
Power cord (Main lead)(1)
(US, CND model)
⚠ 1-790-107-22



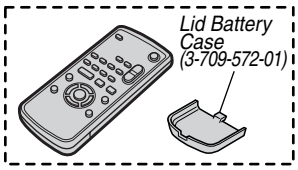
AC power adaptor (1) (AC-L15A)
⚠ 1-477-533-32



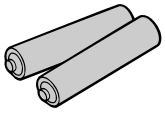
NP-FM50 battery pack (1)
(not supplied)



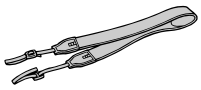
A/V connecting cable
(1.5m) (1)
1-824-097-11



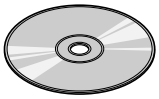
Wireless Remote Commander (1)
(RMT-820)
1-477-868-21



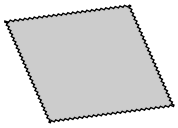
R6 (size AA) batteries
for the Remote
Commander (2)
(not supplied)



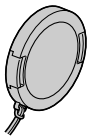
Shoulder strap (1)
3-987-015-01



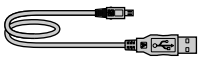
CD-ROM
(SPVD-011 (I) USB Driver) (1)
(US, CND model)
3-086-131-01
CD-ROM
(SPVD-011 USB Driver) (1)
(AEP, UK, EE, E, HK,
KR, AUS model)
3-086-132-01



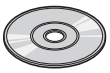
Cleaning cloth (1)
3-073-861-01



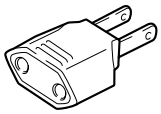
Lens cap (1)
X-3953-658-1



USB cable (1)
1-823-930-11



DVD-R (DMR30) (1)
(not supplied)



2-pin conversion adaptor (1)
(E, HK model)
1-569-008-12

21-pin conversion connector (1)
(AEP, UK, EE model)
1-770-783-21

• Abbreviation

CND : Canadian model	AUS : Australian model
EE : East European model	KR : Korea model
HK : Hong Kong model	

Other accessories

3-081-300-13 MANUAL, INSTRUCTION (ENGLISH) (DVD200:US,CND,E/DVD300)
3-081-300-21 MANUAL, INSTRUCTION (FRENCH)(DVD200:CND)
3-081-300-31 MANUAL, INSTRUCTION (SPANISH/PORTUGUESE) (DVD200:E)
3-081-300-41 MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (DVD200:E)
3-081-300-51 MANUAL, INSTRUCTION (KOREAN)(DVD200:KR)
3-081-300-61 MANUAL, INSTRUCTION (ARABIC)(DVD200:E)
3-081-302-11 MANUAL, INSTRUCTION (ENGLISH/FRENCH) (DVD200E:AEP,UK,E,HK,AUS)
3-081-302-21 MANUAL, INSTRUCTION (SPANISH/PORTUGUESE) (DVD200E:AEP)
3-081-302-31 MANUAL, INSTRUCTION (ITALIAN/GREEK) (DVD200E:AEP)
3-081-302-41 MANUAL, INSTRUCTION (GERMAN/DUTCH) (DVD200E:AEP)
3-081-302-51 MANUAL, INSTRUCTION (SWEDISH/RUSSIAN) (DVD200E:E)
3-081-302-61 MANUAL, INSTRUCTION (ARABIC/PERSIAN) (DVD200E:E)
3-081-302-71 MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (DVD200E:HK)
3-081-302-81 MANUAL, INSTRUCTION (SIMPLIFIED CHINESE) (DVD200E:E)

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

9-876-274-31

Sony EMCS Co.

2003H1600-1
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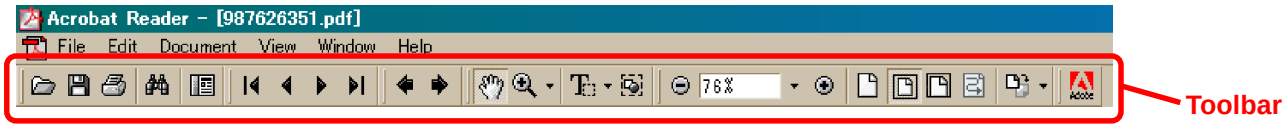
COVER

[Description of main button functions on toolbar of the Adobe Acrobat Reader Ver5.0 (for Windows)]



Printing a text

1. Click the Print button .
2. Specify a printer, print range, number of copies, and other options, and then click [OK].

Application of printing:
To set a range to be printed within a page, select the graphic selection tool and drag on the page to enclose a range to be printed, and then click the Print button.

Finding a text

1. Click the Find button .
2. Enter a character string to be found into a text box, and click the [Find]. (Specify the find options as necessary)
3. Open the find dialog box again, and click the [Find Again] and you can find the matched character strings displayed next. (Character strings entered previously are displayed as they are in the text box.)

Application to the Service Manual:
The parts on the drawing pages (block diagrams, circuit diagrams, printed circuit boards) and parts list pages in a text can be found using this find function. For example, find a Ref. No. of IC on the block diagram, and click the [Find Again] continuously, so that you can move to the Ref. No. of IC on the circuit diagram or printed circuit board diagram successively.
Note: The find function may not be applied to the Service Manual depending on the date of issue.

Switching a page

- To move to the first page, click the .
- To move to the last page, click the .
- To move to the previous page, click the .
- To move to the next page, click the .

Reversing the screens displayed once

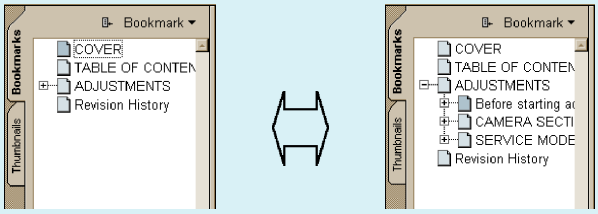
- To reverse the previous screens (operation) one by one, click the .
- To advance the reversed screens (operation) one by one, click the .

Application to the Service Manual:
This function allows you to go and back between circuit diagram and printed circuit board diagram, and accordingly it will be convenient for the voltage check.

Moving with link

1. Select either palm tool , zoom tool , text selection tool , or graphic selection tool .
2. Place the pointer in the position in a text where the link exists (such as a button on cover and the table of contents page, or blue characters on the removal flowchart page or drawing page), and the pointer will change to the forefinger form .
3. Then, click the link. (You will go to the link destination.)

Moving with bookmark:
Click an item (text) on the bookmark pallet, and you can move to the link destination. Also, clicking can display the hidden items.
(To go back to original state, click)



Zooming or rotating the screen display

"Zoom in"

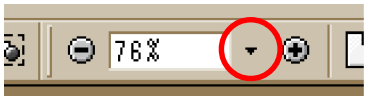
- Select the zoom tool and click the page.
- Select the zoom tool and drag a range to be zoomed in.

"Zoom out"

- Select the zoom-out tool and click the page.
- Select the zoom-out tool and drag a range to be zoomed out.

"Zoom in/out"

- Click the triangle button in the zoom control box to select the display magnification. Or, you may click or for zooming in or out.



"Rotate"

- Click rotate tool , and the page then rotates 90 degrees each.

Application to the Service Manual:
The printed circuit board diagram you see now can be changed to the same direction as the set.

Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2003.08	Official Release	—	—

DCR-DVD200/DVD200E/ DVD300

RMT-820

SONY

LEVEL 2

SERVICE MANUAL

Ver 1.1 2003. 12

US Model
DCR-DVD200/DVD300
Canadian Model
Korea Model
DCR-DVD200
AEP Model
UK Model
East European Model
Hong Kong Model
Australian Model
DCR-DVD200E
E Model
DCR-DVD200/DVD200E

CORRECTION-1

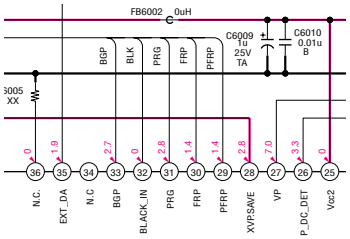
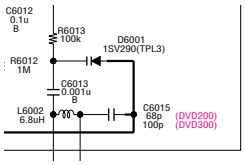
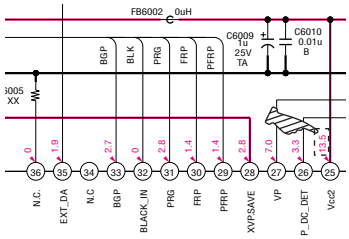
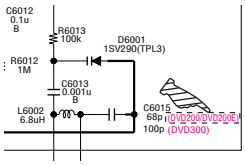
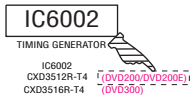
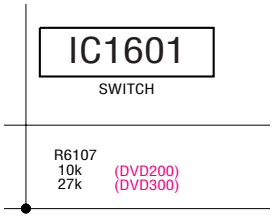
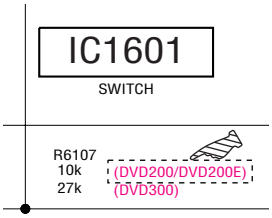
Correct your service manual as shown below.

Correction of the schematic diagrams,
printed wiring boards,repair parts list.

SECTION 4 PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

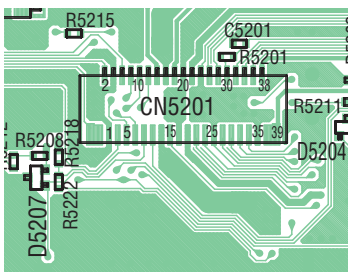
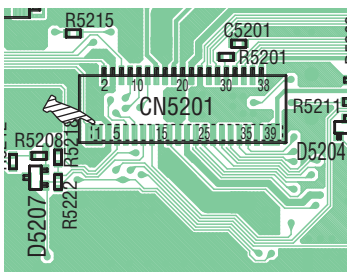
4-2. SCHEMATIC DIAGRAMS

: Changed portion.

Page	INCORRECT	CORRECT
4-13	**PD-188 BOARD (1/2)** **(Location B-10)**  **(Location G-12)**  **(Location J-10)** 	**PD-188 BOARD (1/2)** **(Location B-10)**  **(Location G-12)**  **(Location J-10)** 
4-15	**PD-188 BOARD (2/2)** **(Location F-6)** 	**PD-188 BOARD (2/2)** **(Location F-6)** 

4-2. PRINTED WIRING BOARDS

: Changed portion.

Page	INCORRECT	CORRECT
4-92	**CK-127 BOARD (SIDE B)** **(Location B-4)** 	**CK-127 BOARD (SIDE B)** **(Location B-4)** 

SECTION 5 REPAIR PARTS LIST

5-1. EXPLODED VIEWS

: Changed portion. : Added portion.

<table>
<tr><th>Page</th><th>INCORRECT</th><th>CORRECT</th></tr>
<tr><td>5-3</td><td>

5-1-1. OVERALL SECTION

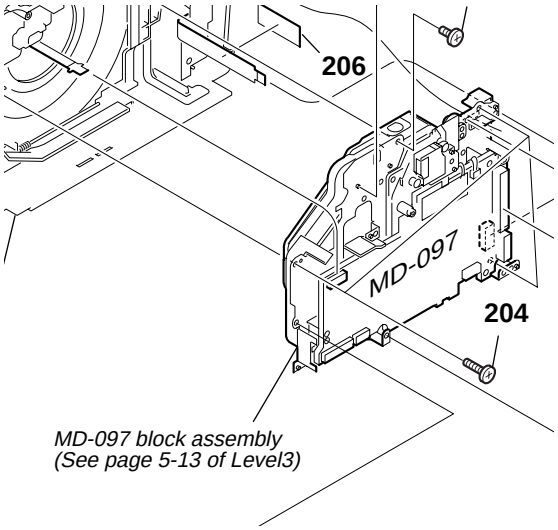
Ref. No.	Part No.	Description
10	3-084-667-01	WATER PAKING

</td><td>

Ref. No.	Part No.	Description
10	3-084-667-01	WATER PACKING

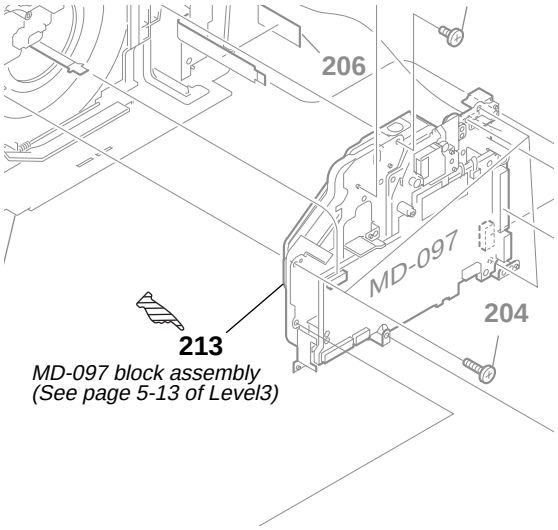
</td></tr>
<tr><td>5-7</td><td>

5-1-5. MD SECTION



Ref. No.	Part No.	Description
212	A-7111-388-A	VC-310 (MEGA P) BOARD, COMPLETE (DVD200E) (SERVICE)

</td><td>



Ref. No.	Part No.	Description
212	A-7111-388-A	VC-310 (MEGA P) BOARD, COMPLETE (DVD200E) (SERVICE)
213	A-7111-651-A	MD-097 BLOCK ASSY (SERVICE)

</td></tr>
<tr><td>5-10</td><td>

5-1-8. CABINET (R) SECTION (DVD200/DVD200E)

Ref. No.	Part No.	Description
366	X-3953-612-1	CABINET (R) (25M) ASSY (DVD200)
366	X-3953-639-2	CABINET (R) (25M) ASSY (DVD200E)

</td><td>

Ref. No.	Part No.	Description
366	X-3953-612-1	CABINET (R) (25M) ASSY (DVD200)
366	X-3953-639-1	CABINET (R) (25M) ASSY (DVD200E)

</td></tr>
</table>

5-2. ELECTRICAL PARTS LIST

: Changed portion. : Added portion.

Page	INCORRECT	CORRECT
5-18	Ref. No. Part No. Description A-7078-804-A MD-097 BOARD, COMPLETE ********** A-7078-805-A SS-174T BOARD, COMPLETE ********** A-7078-815-A VC-310 (MEGA) BOARD, COMPLETE (DVD200:US,CND,E(CX5520),KR/DVD300) A-7111-388-A VC-310 (MEGA P) BOARD, COMPLETE (DVD200:AEP,UK,E(CX5521),HK,AUS) **********	Ref. No. Part No. Description A-7078-804-A MD-097 BOARD, COMPLETE (Note1) ********** A-7078-805-A SS-174T BOARD, COMPLETE ********** A-7078-815-A VC-310 (MEGA) BOARD, COMPLETE (SERVICE) (DVD200/DVD300) A-7111-388-A VC-310 (MEGA P) BOARD, COMPLETE (SERVICE) (DVD200E) ********** **Note1 :** Since a service is provided only for the MD-097 BLOCK ASSY (A-7111-651-A) and not for the single MD-097 board, complete.

2003L1600-1
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DCR-DVD200/DVD200E/ DVD300

RMT-820

SERVICE MANUAL

LEVEL 2

Ver 1.1 2003. 12

Revision History

How to use Acrobat Reader

Photo: DCR-DVD300

US Model
DCR-DVD200/DVD300
Canadian Model
Korea Model
DCR-DVD200
AEP Model
UK Model
East European Model
Hong Kong Model
Australian Model
DCR-DVD200E
E Model
DCR-DVD200/DVD200E

Link

SPECIFICATIONS	BLOCK DIAGRAMS	PRINTED WIRING BOARDS
SERVICE NOTE	FRAME SCHEMATIC DIAGRAMS	REPAIR PARTS LIST
DISASSEMBLY	SCHEMATIC DIAGRAMS	

- For INSTRUCTION MANUAL, refer to SERVICE MANUAL, LEVEL 1 (987627441.pdf).
- Since a service is provided only for the MD-097 BLOCK ASSY (A-7111-651-A) and not for the single MD-097 board, complete.
- Reference No. search on printed wiring boards is available.

On the MD-097, SS-174T and VC-310 board

This service manual provides the information that is premised the circuit board replacement service and not intended repair inside the MD-097, SS-174T and VC-310 board.

Therefore, schematic diagram, printed wiring board, waveforms, mounted parts location and electrical parts list of the MD-097, SS-174T and VC-310 board are not shown.

The following pages are not shown.

Disassembly ..... Pages 2-30 to 2-32
Schematic diagram ..... Pages 4-27- to 4-78
Printed wiring board ..... Pages 4-97 to 4-106
Waveforms ..... Pages 4-109 to 4-110
Mounted parts location ..... Pages 4-113 to 4-116
Exploded views ..... Pages 5-13 to 5-14
Electrical parts list ..... Pages 5-19 to 5-34

DVD R/RW Digital Video Camera Recorder

SONY®

COVER

Self Diagnosis Supported model

HANDYCAM

USB

InfoLITHIUM M SERIES

SPECIFICATIONS

Video camera recorder

System

Video recording format
DVD-Video
DVD-VR (DVD-RW only)
Audio recording system
2ch Dolby* Digital
Video signal
DCR-DVD200/DVD300:
NTSC color, EIA standards
DCR-DVD200E:
PAL colour, CCIR standards
Usable discs
8 cm DVD-R and DVD-RW
Video compression format
MPEG2/JPEG (Still images)
Recording/playback time
HQ: approx. 20 minutes
SP: approx. 30 minutes
LP: approx. 60 minutes
Viewfinder
Electric viewfinder (color)
Image device
DCR-DVD200/DVD200E:
3.8 mm (1/4.7 type) CCD (Charge Coupled Device)
Number of Pixels
Gross: Approx. 1 070 000 pixels
Effective (for still images):
Approx. 1 000 000 pixels
Effective (for movies):
Approx. 690 000 pixels

DCR-DVD300:
3.8 mm (1/4.7 type) CCD (Charge Coupled Device)
Number of Pixels
Gross: Approx. 1 070 000
Effective (for still images):
Approx. 1 000 000 pixels
Effective (for movies):
Approx. 690 000 pixels

* Manufactured under license from Dolby Laboratories.
"Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

Lens
Carl Zeiss
Combined power zoom lens
Filter diameter:
30 mm (1 3/16 in.)
10×(Optical), 120× (Digital)
F = 1.8 – 2
Focal length
3.7 – 37 mm (5/32 – 1 1/2 in.)
When converted to a 35 mm still camera
For movies:
50 – 500 mm (2 – 19 3/4 in.)
For still images:
42 – 420 mm (1 11/16 – 16 5/8 in.)
Color temperature
Auto, HOLD (Hold), Indoor (3 200 K), Outdoor (5 800 K)
Minimum illumination
7 lx (lux) (F 1.8)
0 lx (lux) (in the NightShot mode)*
* Objects unable to be seen due to the dark can be shot with infrared lighting.

Input/Output connectors

S video input/output
4-pin mini DIN
Luminance signal: 1 Vp-p, 75Ω (ohms), unbalanced
Chroinance signal:
DCR-DVD200/DVD300: 0.286 Vp-p,
DCR-DVD200E: 0.3 Vp-p,
75 Ω (ohms), unbalanced
Audio/Video input/output
AV MINI JACK, 1 Vp-p, 75 Ω (ohms), unbalanced, sync negative 327 mV, (at output impedance of more than 47 kΩ (kilohms))
Output impedance of less than 2.2 kΩ (kilohms)/Stereo minijack (ø 3.5mm)
Input impedance of more than 47 kΩ (kilohms)
USB jack
mini-B
Control jack
Stereo mini-minijack (ø 2.5 mm)
MIC jack
Stereo minijack (ø 3.5 mm)

LCD screen

Picture
DCR-DVD200/DVD200E:
6.2 cm (2.5 type)
DCR-DVD300:
8.8 cm (3.5 type)
Total number of pixels
123 200 (560 × 220)

General

Power requirements
7.2 V (battery pack)
8.4 V (AC adaptor)
Average power consumption (when using the battery pack)
During camera recording using LCD
DCR-DVD200/DVD200E: 7.0 W
DCR-DVD300: 7.2 W
Viewfinder
6.0 W
Operating temperature
0°C to 40°C (32°F to 104°F)
Storage temperature
–20°C to + 60°C
(–4°F to + 140°F)
Dimensions (Approx.)
DCR-DVD200/DVD200E:
66 × 94 × 142 mm
(2 5/8 × 3 3/4 × 5 5/8 in.)
(w/h/d)
DCR-DVD300:
79 × 94 × 142 mm
(3 1/8 × 3 3/4 × 5 5/8 in.)
(w/h/d)
Mass (approx.)
DCR-DVD200/DVD200E
650 g (1 lb 6 oz)
main unit only
740 g (1 lb 10 oz)
including the battery pack, disc and lens cap
DCR-DVD300
710 g (1 lb 9 oz)
main unit only
800 g (1 lb 12 oz)
including the battery pack, disc and lens cap
Supplied accessories
See page 5-35.

AC adaptor AC-L15A

Power requirements
100 – 240 V AC, 50/60 Hz
Current consumption
0.35 – 0.18 A
Power consumption
18 W
Output voltage
DC OUT: 8.4 V, 1.5 A in the operating mode
Operating temperature
0°C to 40°C (32°F to 104°F)
Storage temperature
–20°C to + 60°C (–4°F to + 140°F)
Dimensions (approx.)
56 × 31 × 100 mm
(2 1/4 × 1 1/4 × 4 in.) (w/h/d)
excluding projecting parts
Mass (approx.)
190 g (6.7 oz)
excluding power cord

Rechargeable battery pack NP-FM50

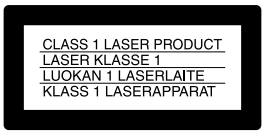
Maximum output voltage
DC 8.4 V
Output voltage
DC 7.2 V
Capacity
8.5 Wh (1 180 mAh)
Dimensions (approx.)
38.2 × 20.5 × 55.6 mm
(1 9/16 × 13/16 × 2 1/4 in.)
(w/h/d)
Mass (approx.)
76 g (2.7 oz)
Operating temperature
0°C to 40°C (32°F to 104°F)
Type
Lithium ion

Design and specifications are subject to change without notice.

Table for difference of function

Model	DCR-DVD200	DCR-DVD200E	DCR-DVD300	Remark
Destination	US/CND/E/KR	AEP/UK/EE/E/HK/AUS	US	
Color System	NTSC	PAL	NTSC	NTSC: X1602 is 66MHz PAL: X1602 is 54MHz
LCD size	2.5 INCH		3.5 INCH	

- Abbreviation
  CND : Canadian model
  EE : East European model
  HK : Hong Kong model
  AUS : Australian model
  KR : Korea model



WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30 cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

CAUTION:
The use of optical instrument with this product will increase eye hazard.

CAUTION
Use of controls or adjustments or performance procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION :
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
   - Keep the temperature of the soldering iron around 270˚C during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

Unleaded solder

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

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1. SERVICE NOTE

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2. TO TAKE OUT A CASSETTE WHEN NOT EJECT (FORCE EJECT) ····· 1-1
3. NOTES ON HANDLING THE OPTICAL PICK-UP ···· 1-1
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HELP (List of caution points is shown here.)

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Printed wiring board of the MD-097, SS-174T and VC-310 board are not shown.
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Exploded view and parts list of MD-097 BLOCK are not shown. Page 5-13 and 5-14 are not shown.

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Electrical parts list of the MD-097, SS-174T, and VC-310 board are not shown.
Pages from 5-19 to 5-34 are not shown.

COVER

SECTION 1
SERVICE NOTE

1-1. SERVICE NOTE

1. POWER SUPPLY DURING REPAIRS

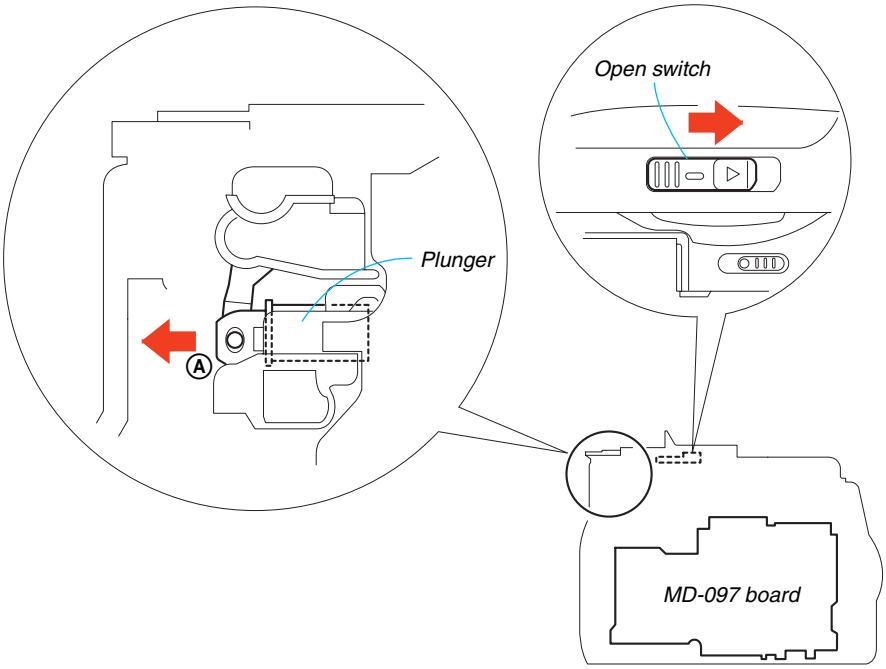
In this unit, about 10 seconds after power is supplied to the battery terminal using the regulated power supply (8.4V), the power is shut off so that the unit cannot operate.
This following two methods are available to prevent this. Take note of which to use during repairs.

Method 1.
Use the AC power adaptor (AC-L15, AC-VQ800 etc.).

Method 2.
Connect the servicing remote commander RM-95 (J-6082-053-B) to the LANC jack, and set the commander switch to the "ADJ" side.

2. TO TAKE OUT A CASSETTE WHEN NOT EJECT (FORCE EJECT)

① Refer to page 2-3 to remove the front panel assembly.
② Refer to page 2-4 to remove the cabinet (R) assembly.
③ Refer to page 2-16 to remove the battery panel section.
④ Refer to page 2-17 to remove the EVF block.
⑤ Remove the VC-310 board.
⑥ Refer to page 2-21 to remove the lens block and the accessory shoe.
⑦ While pushing the portion Ⓐ in the direction of the arrow, push the OPEN switch in the direction of the arrow and open the disc cover.



3. NOTES ON HANDLING THE OPTICAL PICK-UP

The laser diode may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

4. PRECAUTION FOR CHECKING EMISSION OF LASER DIODE

Laser light of the equipment is focused by the object lens in the optical pick-up so that the light focuses on the reflection surface of the disc. Therefore, be sure to keep your eyes more then 30 cm apart from the object lens when you check the emission of laser diode.

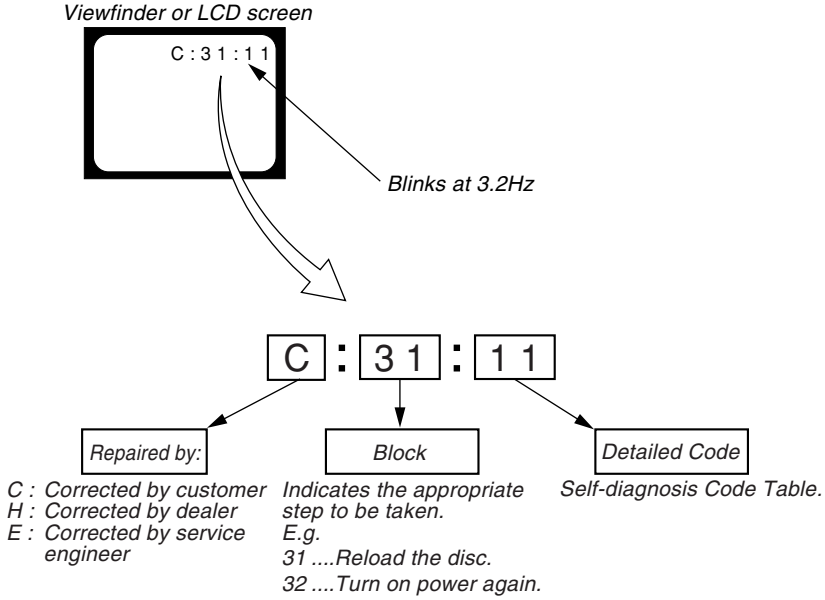
1-2. SELF-DIAGNOSIS FUNCTION

1. SELF-DIAGNOSIS FUNCTION

When problems occur while the unit is operating, the self-diagnosis function starts working, and displays on the viewfinder, or LCD screen what to do. This function consists of two display; self-diagnosis display and service mode display.
Details of the self-diagnosis functions are provided in the Instruction manual.

2. SELF-DIAGNOSIS DISPLAY

When problems occur while the unit is operating, the counter of the viewfinder or LCD screen consists of an alphabet and 4-digit number, which blinks at 3.2Hz. This 5-character display indicates the "repaired by:", "block" in which the problem occurred, and "detailed code" of the problem.



Note: The "self-diagnosis display" data will be kept even if the lithium battery (CK-127 board BT5201 of the cabinet (R) assembly) is removed.

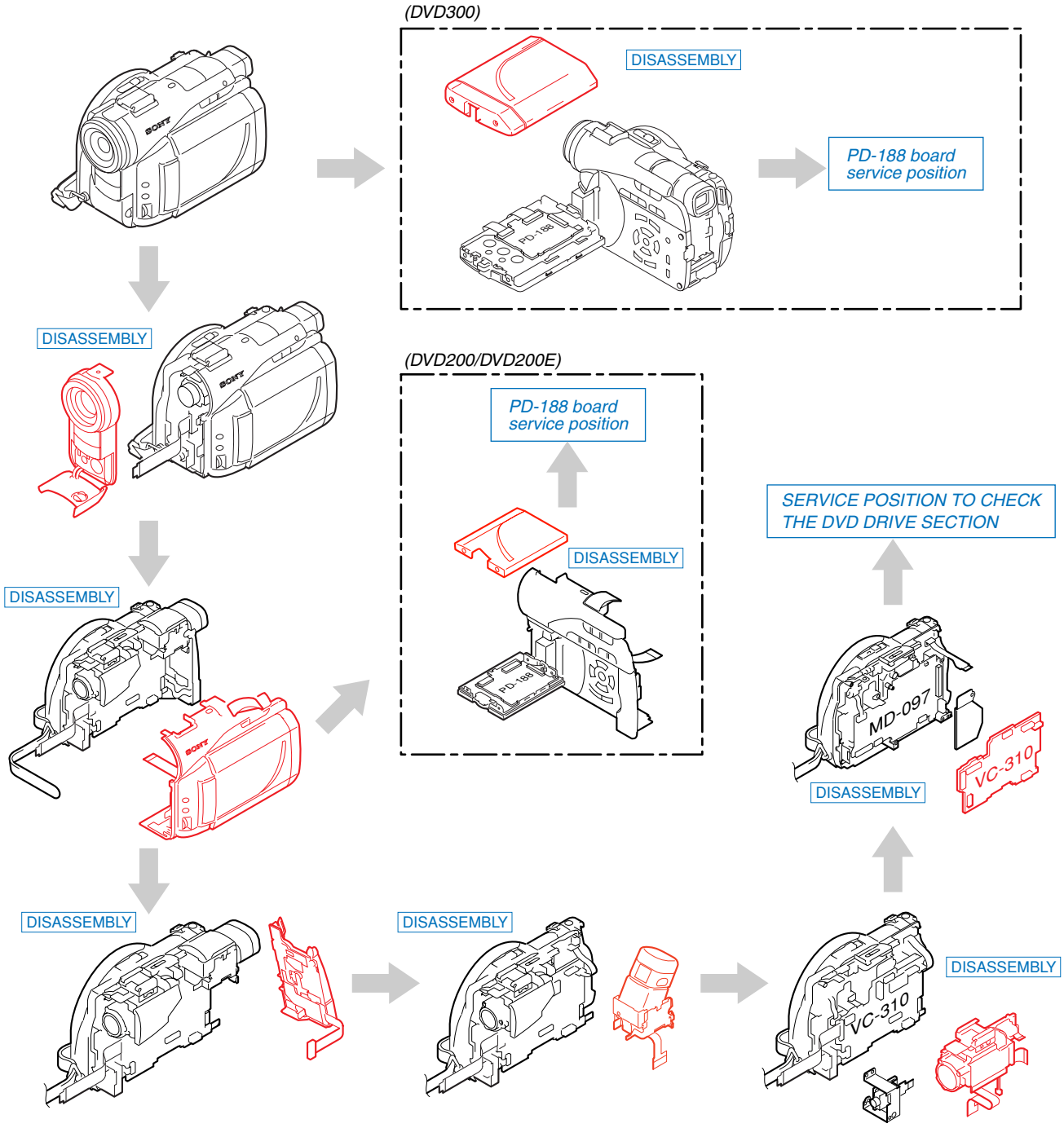
3. SELF-DIAGNOSIS CODE TABLE

Self-diagnosis Code				Symptom/State	Correction
Repaired by:	Block Function		Detailed Code		
C	0	4	0 0	Non-standard battery is used.	Use the InfoLITHIUM battery.
C	1	3	0 0	Faulty disc is used.	Use a compatible disc with the camcorder.
C	2	1	0 0	Condensation.	Remove the disc, and insert it again after one hour.
E	2	0	0 0	EEPROM data are rewritten.	Make EEPROM data correct value. (Note)
E	6	1	0 0	Difficult to adjust focus (Cannot initialize focus.)	Inspect the lens block focus MR sensor (Pin ⑲, ⑳ of CN1201 of VC-310 board) when focusing is performed when the control dial is rotated in the focus manual mode and inspect the focus motor drive circuit (IC1501 of VC-310 board) when the focusing is not performed.
E	6	1	1 0	Zoom operations fault (Cannot initialize zoom lens.)	Inspect the lens block zoom MR sensor (Pin ⑧, ⑩ of CN1501 of VC-310 board) when zooming is performed when the zoom switch is pressed and inspect the zoom motor drive circuit (IC1501 of VC-310 board) when the zooming is not performed.
E	6	2	0 0	Handshake correction function does not work well. (With pitch angular velocity sensor output stopped.)	Inspect angular velocity sensors (SE5501, 5502 of MA-420 board) peripheral circuits.
E	9	3	0 0	USB bridge IC fault	Inspect the USB bridge IC (MD-097 board IC4202) and EEPROM (MD-097 board IC4201)
E	9	4	0 1	Fault of writing to or erasing the flash memory	Inspect the flash memory (VC-310 board IC3401) (Note)

Note: Refer to "8. Record of Self-diagnosis check" of "6-3. SERVICE MODE", ADJ (987627351.pdf).

SECTION 2
DISASSEMBLY

The following flow chart shows the disassembly procedure.

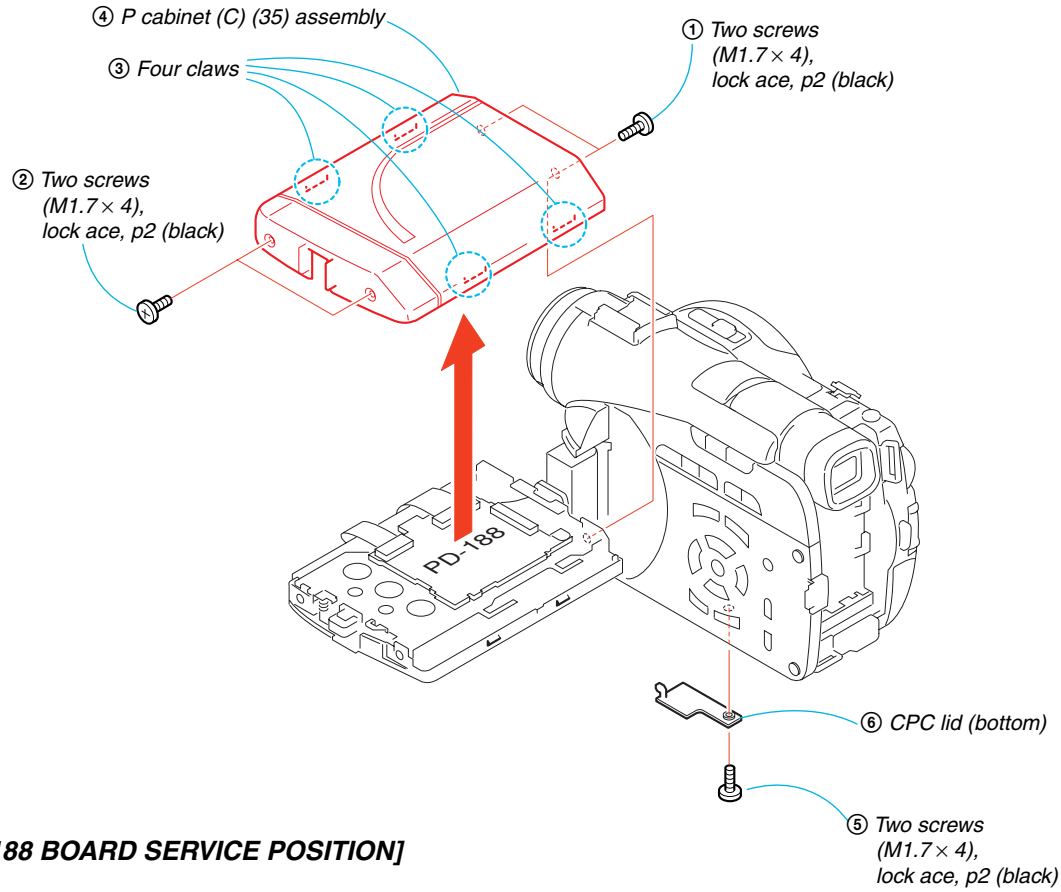


PROCEDURE OF REMOVING THE VC-310 BOARD.
(SERVICE POSITION) TO CHECK THE DVD DRIVE SECTION)

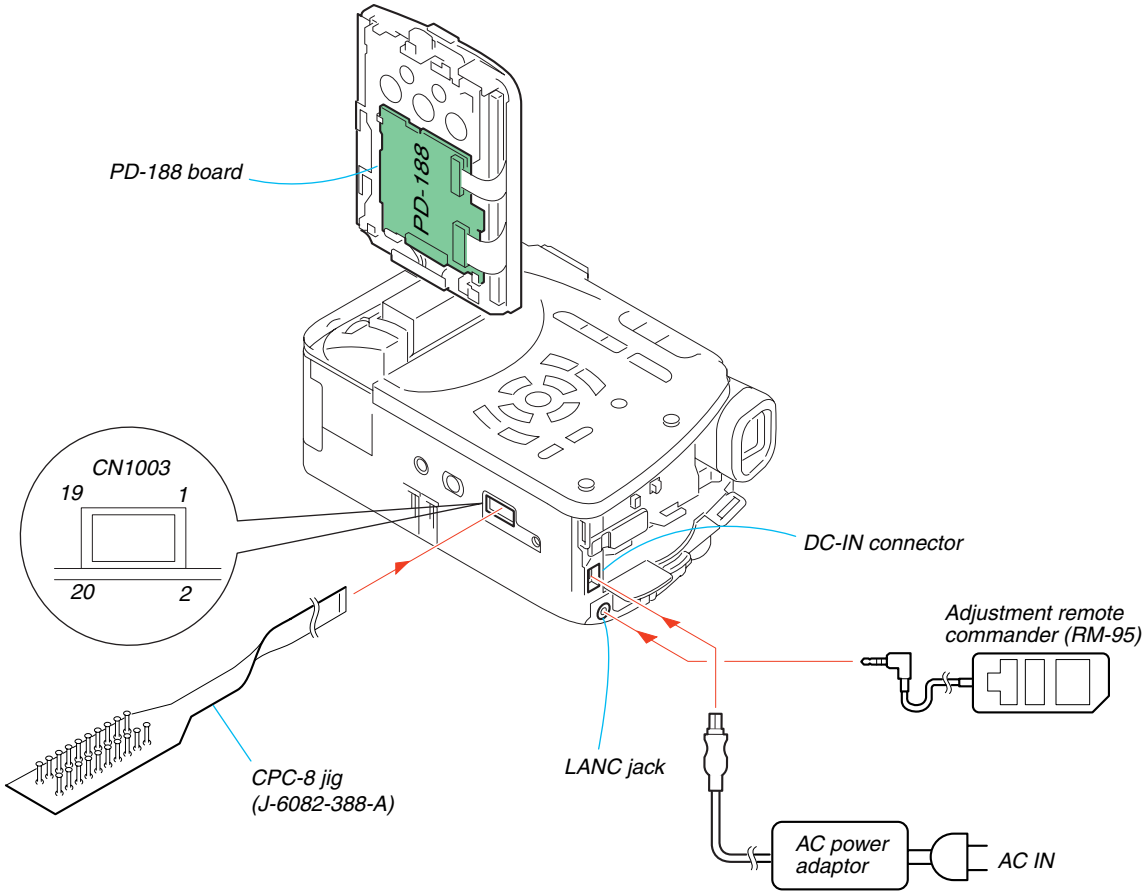
① 2-2. F PANEL SECTION ..... (page 2-3)
② 2-4. CABINET (R) SECTION ..... (page 2-4)
③ 2-26. BATTERY PANEL SECTION..... (page 2-16)
④ 2-27. EVF SECTION..... (page 2-17)
⑤ 2-31. LENS SECTION..... (page 2-21)
⑥ 2-33. VC-310 BOARD..... (page 2-23)
⑦ SERVICE POSITION TO CHECK
THE DVD DRIVE SECTION..... (page 2-24)

NOTE: Follow the disassembly procedure in the numerical order given.

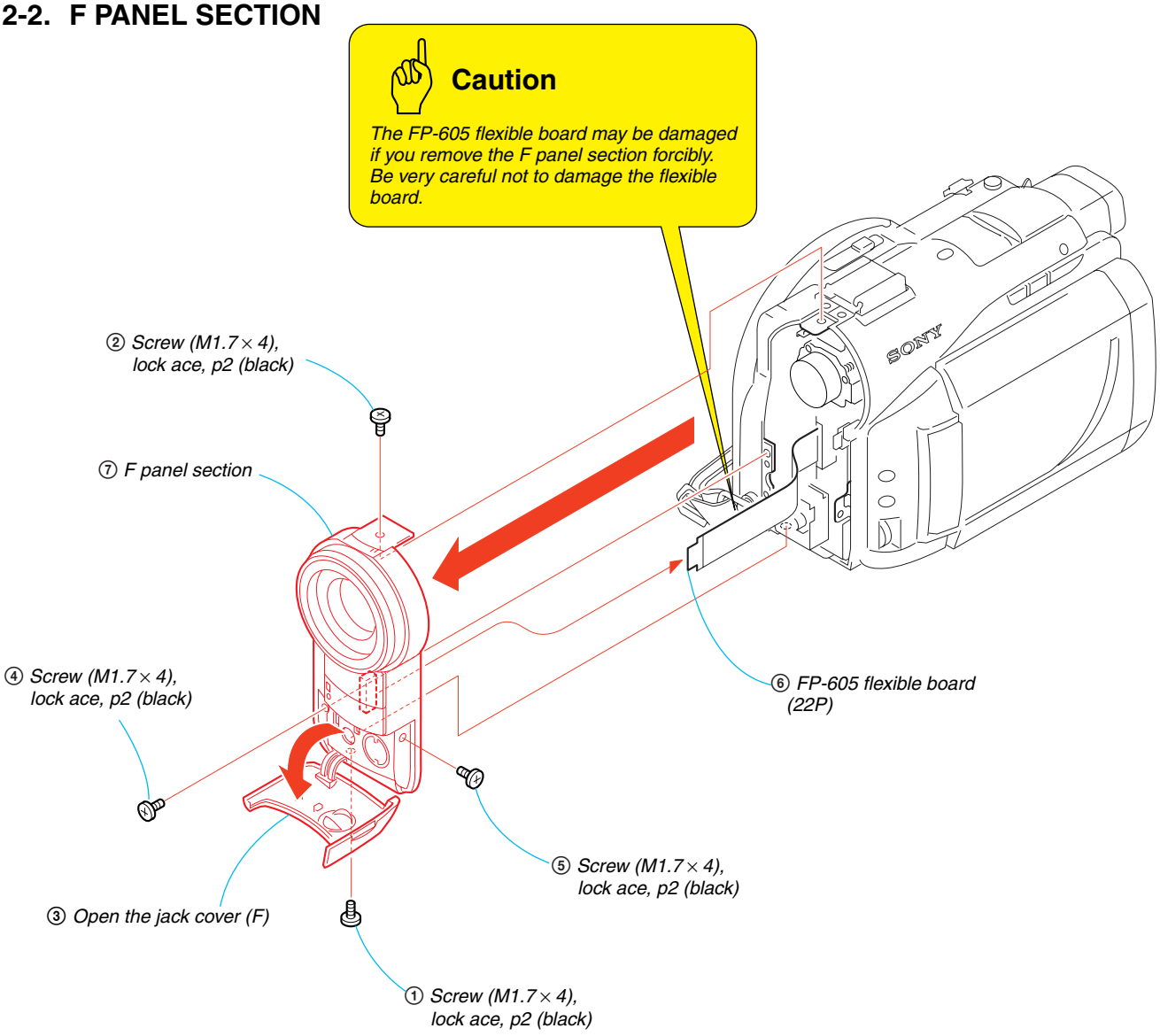
2-1. P CABINET (C) (35) ASSEMBLY (DVD300)



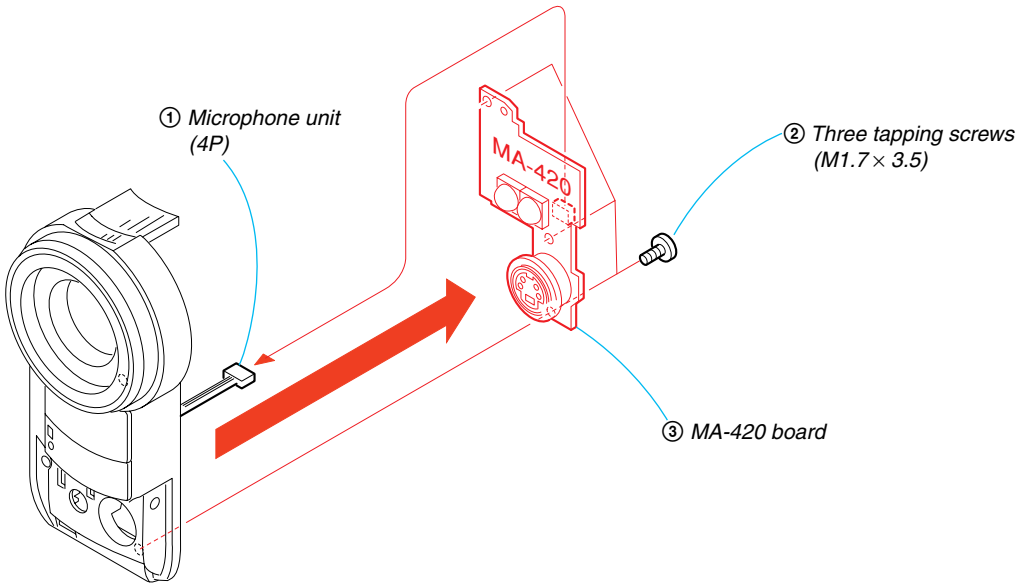
[PD-188 BOARD SERVICE POSITION]



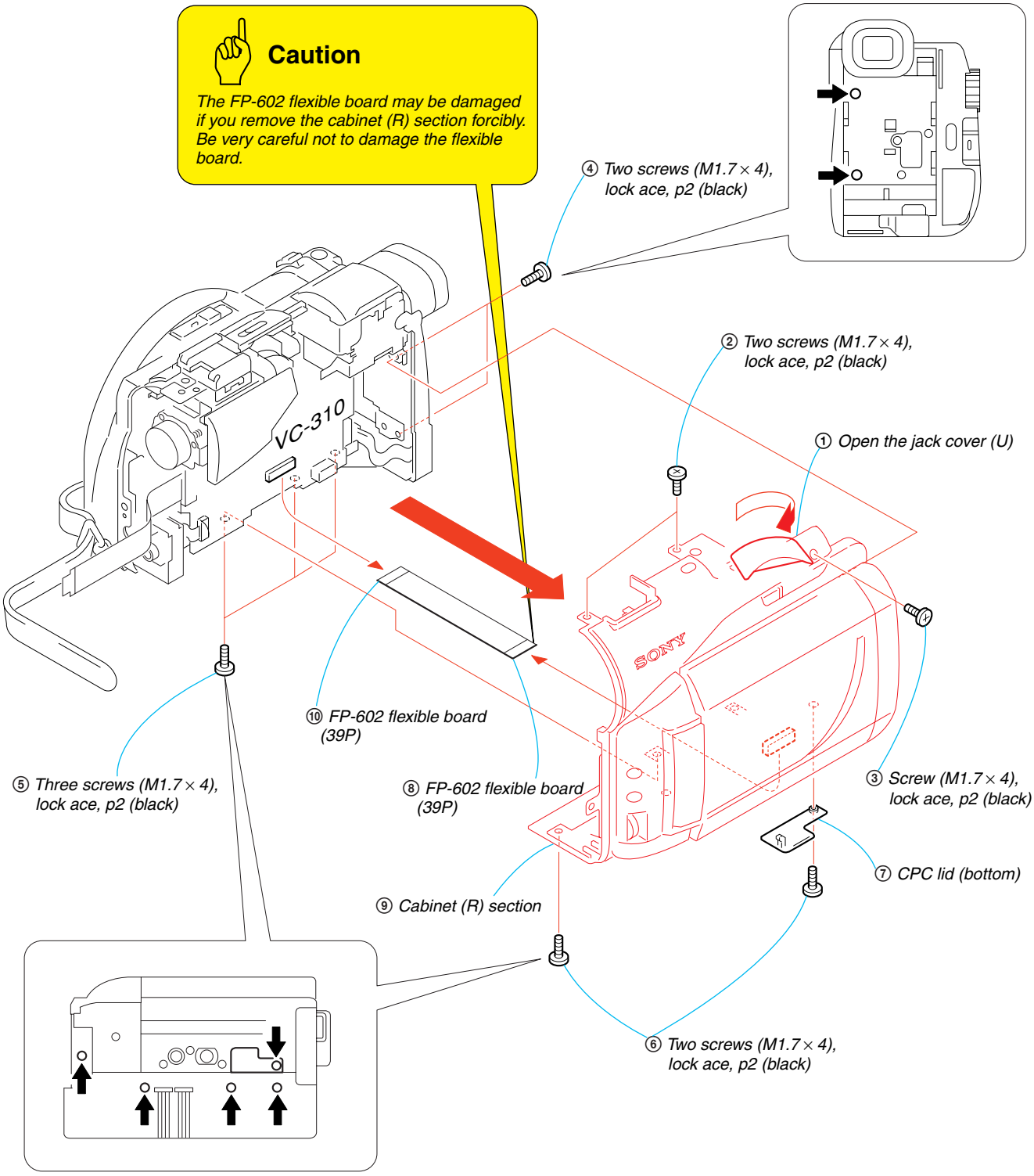
2-2. F PANEL SECTION


Caution
The FP-605 flexible board may be damaged if you remove the F panel section forcibly. Be very careful not to damage the flexible board.
② Screw (M1.7× 4), lock ace, p2 (black)
⑦ F panel section
④ Screw (M1.7× 4), lock ace, p2 (black)
⑥ FP-605 flexible board (22P)
⑤ Screw (M1.7× 4), lock ace, p2 (black)
③ Open the jack cover (F)
① Screw (M1.7× 4), lock ace, p2 (black)
SONY

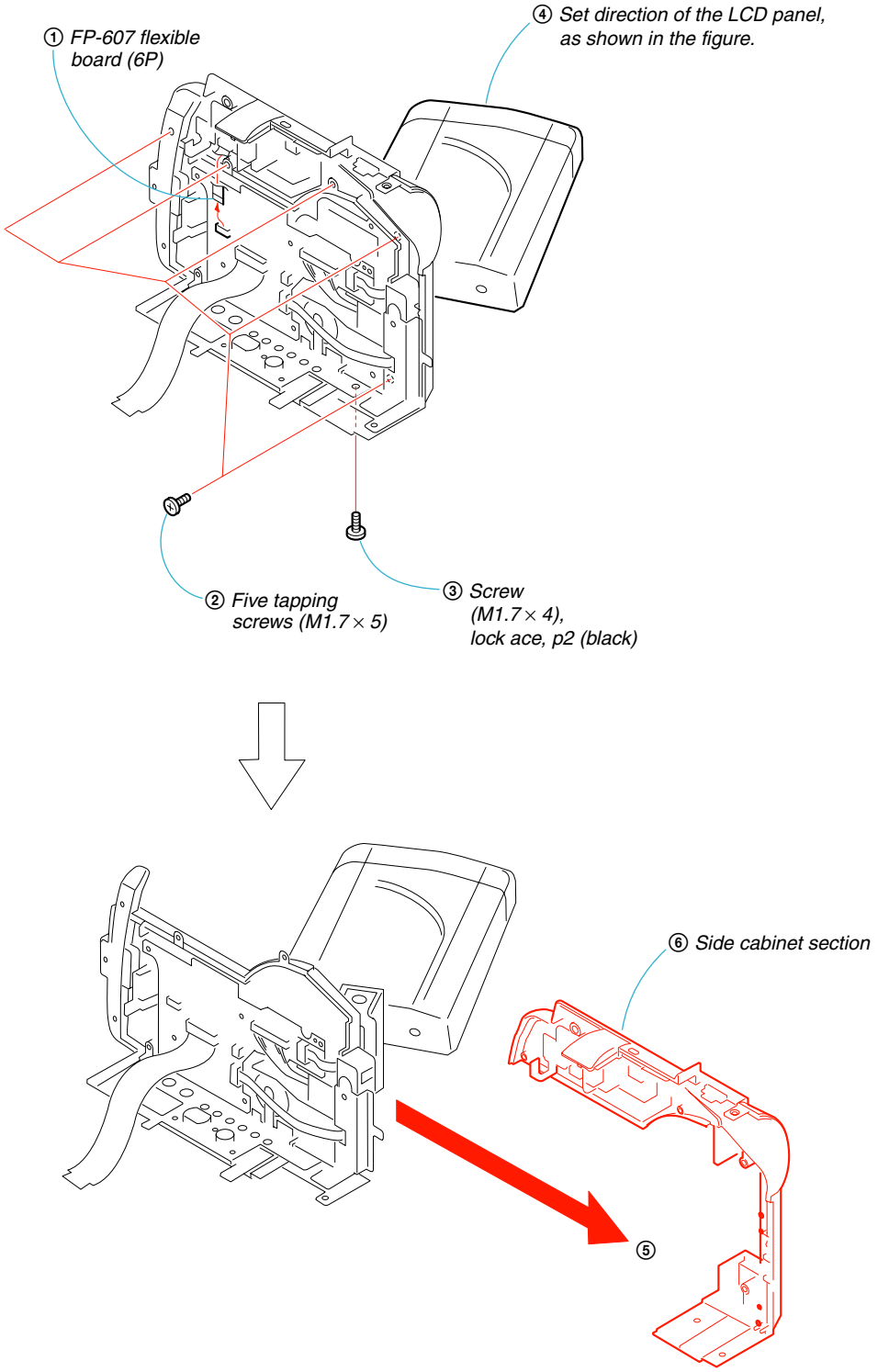
2-3. MA-420 BOARD



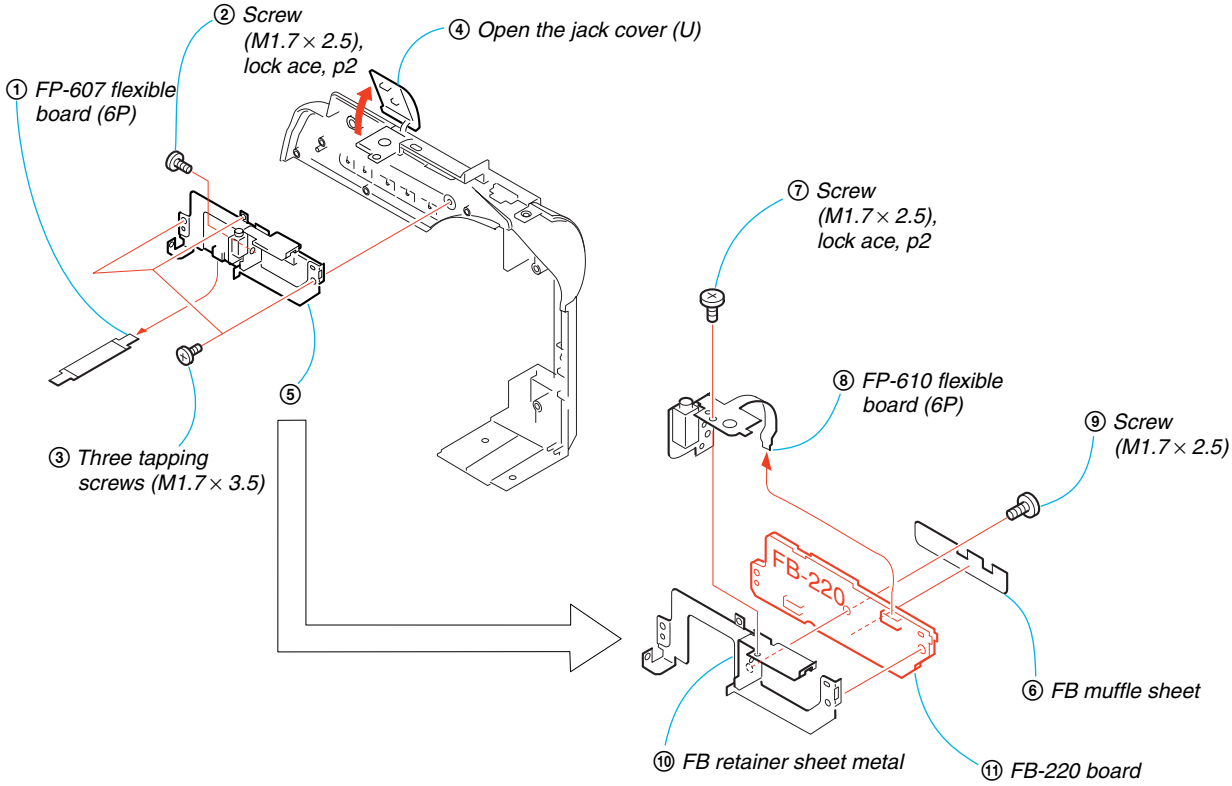
2-4. CABINET (R) SECTION


Caution
The FP-602 flexible board may be damaged if you remove the cabinet (R) section forcibly. Be very careful not to damage the flexible board.
④ Two screws (M1.7 × 4), lock ace, p2 (black)
② Two screws (M1.7 × 4), lock ace, p2 (black)
① Open the jack cover (U)
VC-310
SONY
⑩ FP-602 flexible board (39P)
⑤ Three screws (M1.7 × 4), lock ace, p2 (black)
⑧ FP-602 flexible board (39P)
③ Screw (M1.7 × 4), lock ace, p2 (black)
⑦ CPC lid (bottom)
⑨ Cabinet (R) section
⑥ Two screws (M1.7 × 4), lock ace, p2 (black)

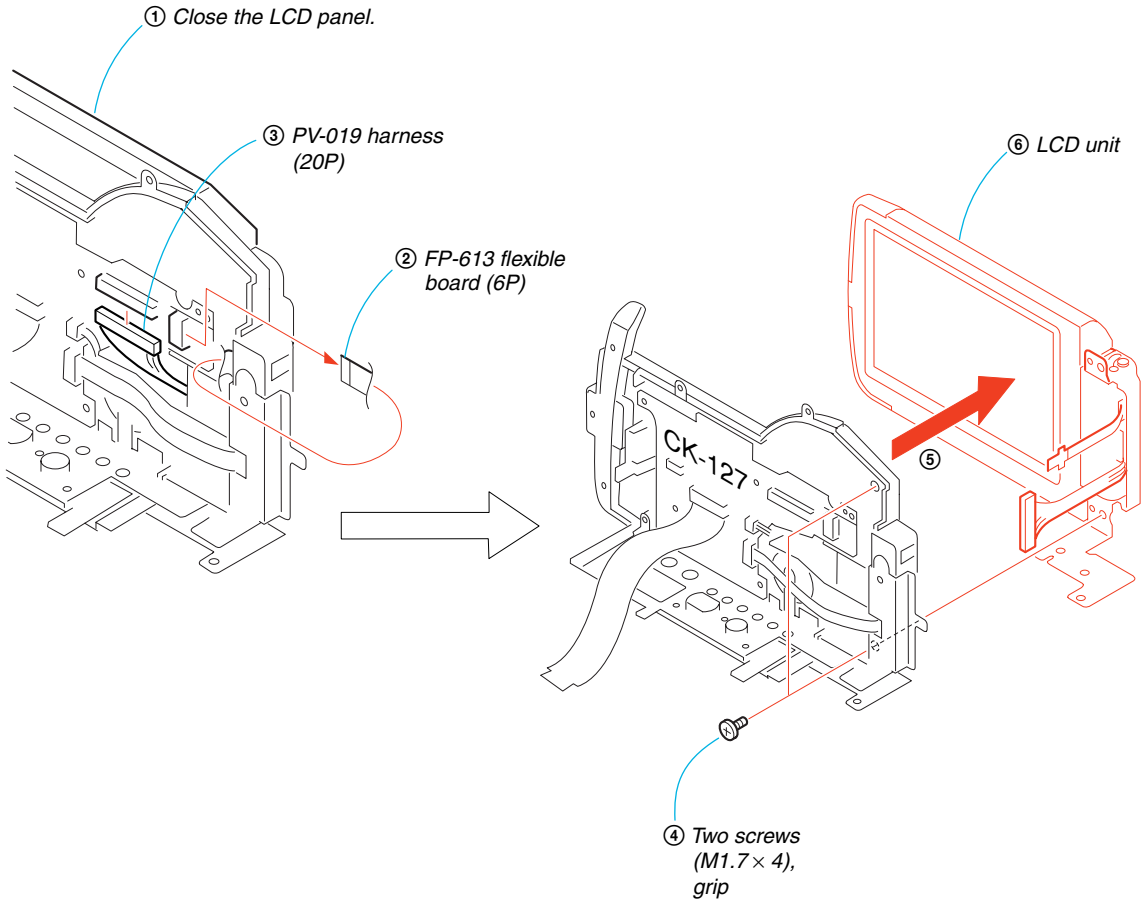
2-5. SIDE CABINET SECTION (DVD300)


① FP-607 flexible board (6P)
④ Set direction of the LCD panel, as shown in the figure.
② Five tapping screws (M1.7 × 5)
③ Screw (M1.7 × 4), lock ace, p2 (black)
⑥ Side cabinet section
⑤

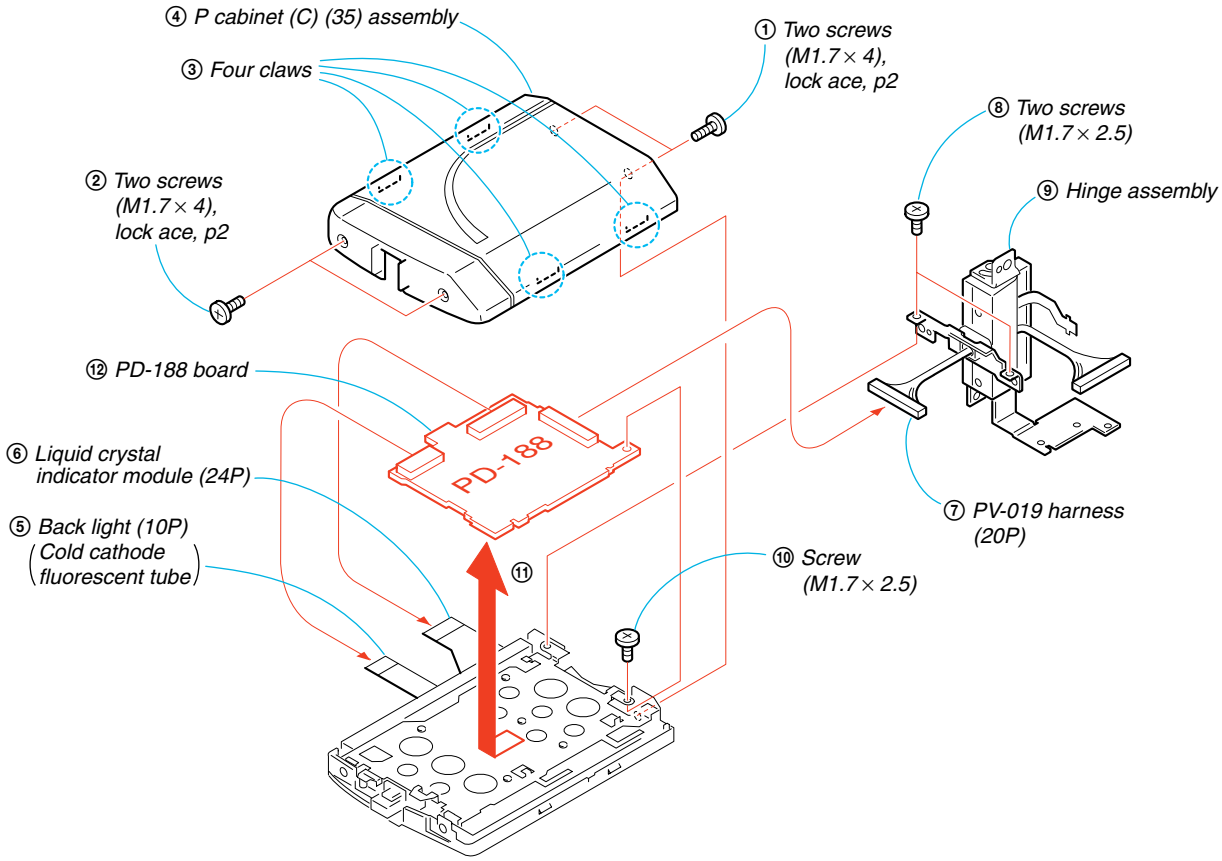
2-6. FB-220 BOARD (DVD300)


② Screw (M1.7 × 2.5), lock ace, p2
④ Open the jack cover (U)
① FP-607 flexible board (6P)
⑦ Screw (M1.7 × 2.5), lock ace, p2
⑧ FP-610 flexible board (6P)
⑨ Screw (M1.7 × 2.5)
⑤
③ Three tapping screws (M1.7 × 3.5)
FB-220
⑥ FB muffle sheet
⑩ FB retainer sheet metal
⑪ FB-220 board

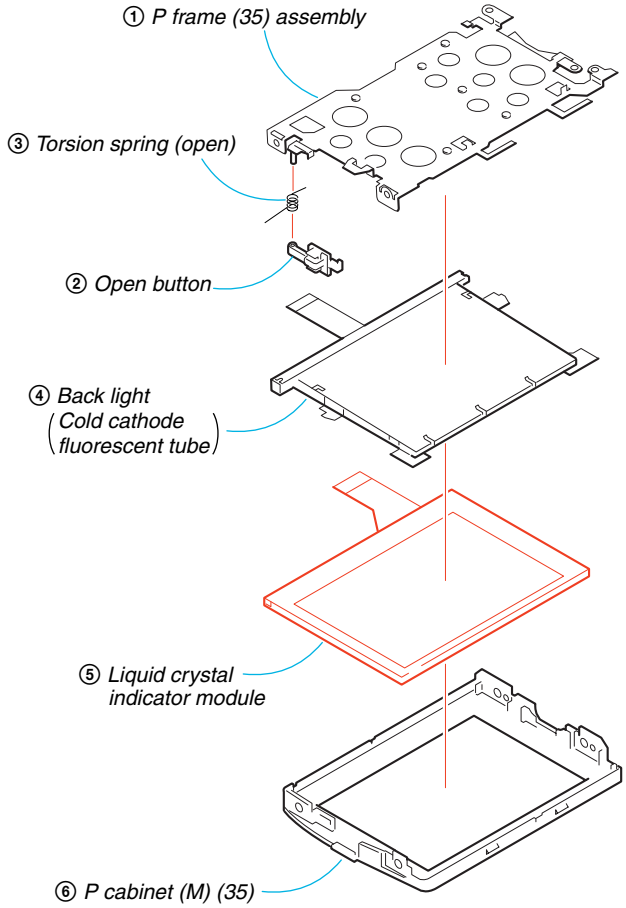
2-7. LCD UNIT (DVD300)



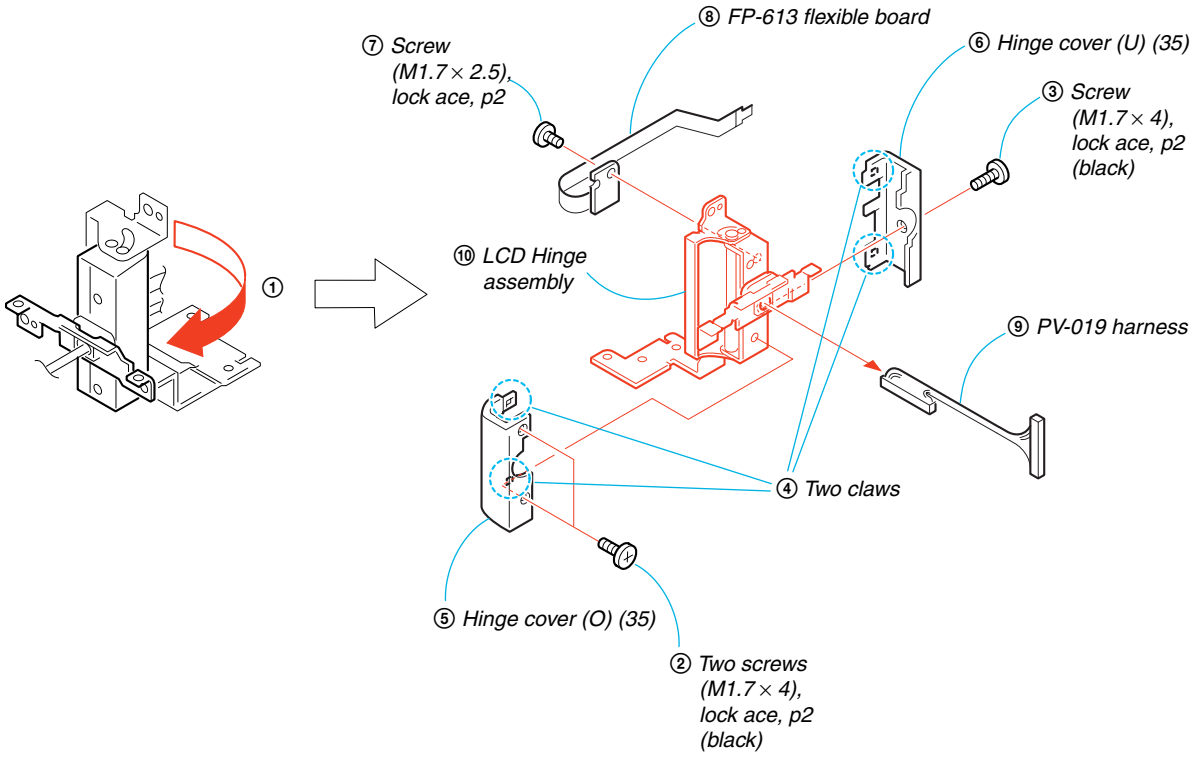
2-8. PD-188 BOARD (DVD300)


④ P cabinet (C) (35) assembly
③ Four claws
① Two screws (M1.7 × 4), lock ace, p2
② Two screws (M1.7 × 4), lock ace, p2
⑧ Two screws (M1.7 × 2.5)
⑨ Hinge assembly
⑫ PD-188 board
PD-188
⑥ Liquid crystal indicator module (24P)
⑤ Back light (10P) (Cold cathode fluorescent tube)
⑪
⑩ Screw (M1.7 × 2.5)
⑦ PV-019 harness (20P)

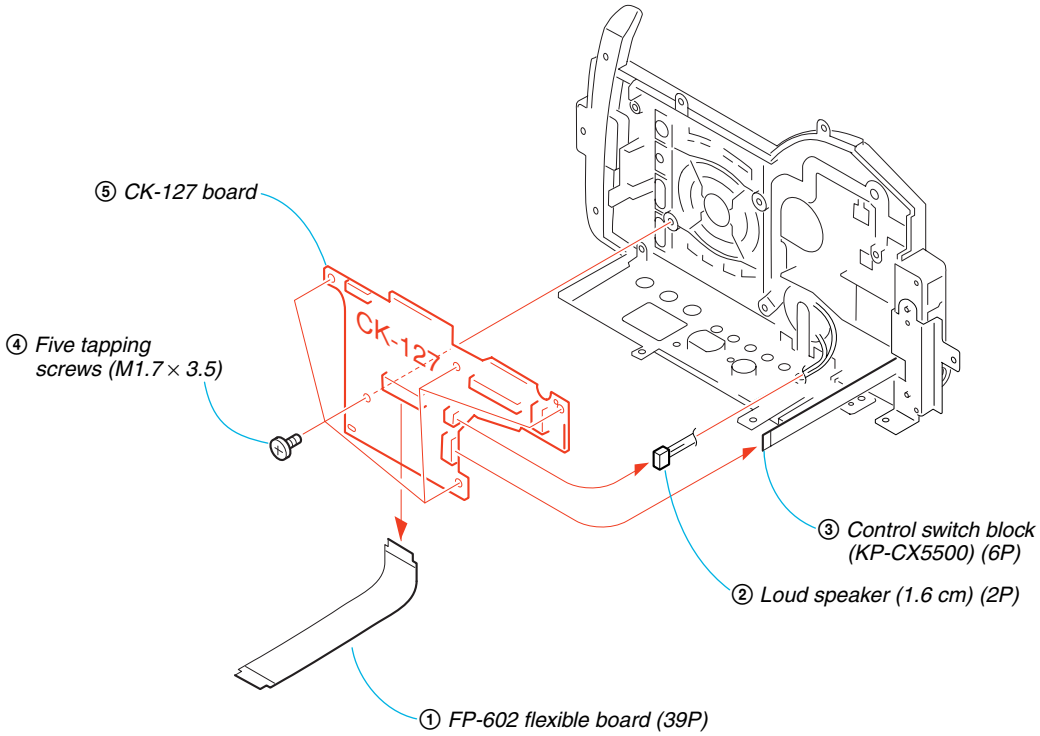
2-9. LIQUID CRYSTAL INDICATOR MODULE (DVD300)


① P frame (35) assembly
③ Torsion spring (open)
② Open button
④ Back light (Cold cathode fluorescent tube)
⑤ Liquid crystal indicator module
⑥ P cabinet (M) (35)

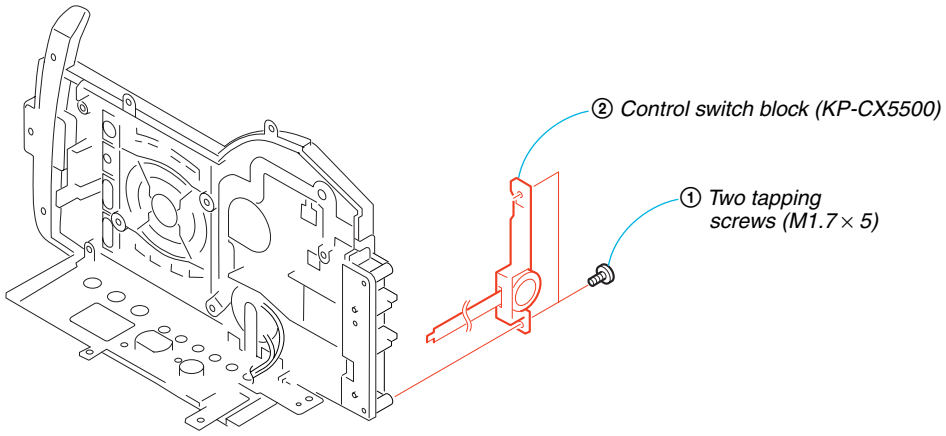
2-10. LCD HINGE ASSEMBLY (DVD300)


⑧ FP-613 flexible board
⑦ Screw (M1.7 × 2.5), lock ace, p2
⑥ Hinge cover (U) (35)
③ Screw (M1.7 × 4), lock ace, p2 (black)
①
⑩ LCD Hinge assembly
⑨ PV-019 harness
④ Two claws
⑤ Hinge cover (O) (35)
② Two screws (M1.7 × 4), lock ace, p2 (black)

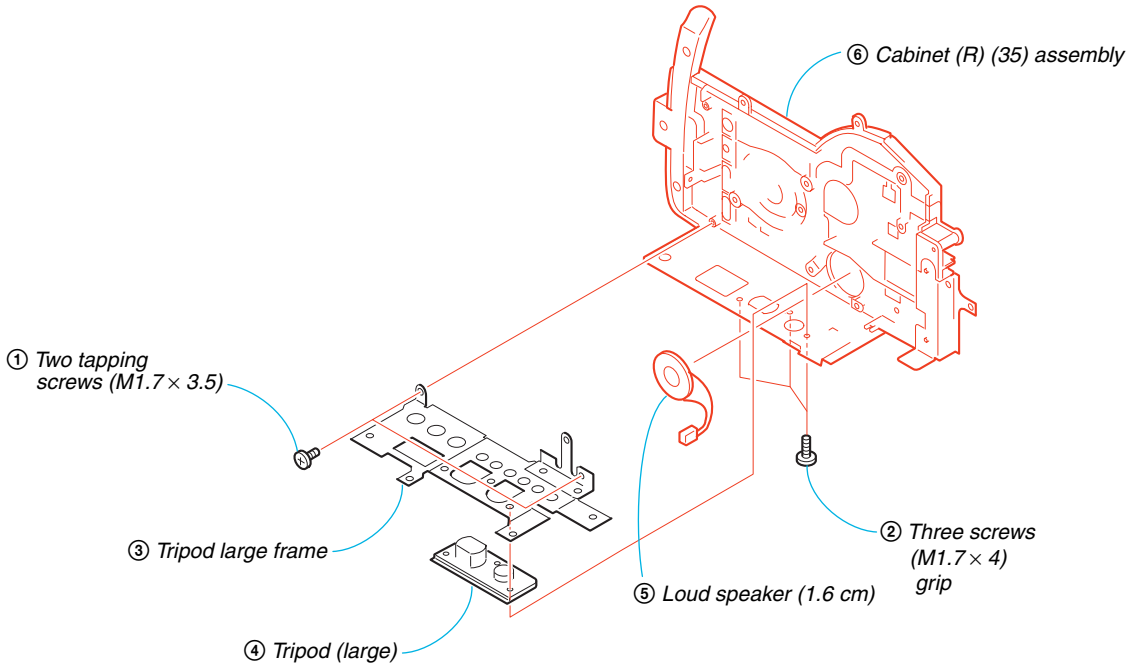
2-11. CK-127 BOARD (DVD300)


⑤ CK-127 board
CK-127
④ Five tapping screws (M1.7 × 3.5)
③ Control switch block (KP-CX5500) (6P)
② Loud speaker (1.6 cm) (2P)
① FP-602 flexible board (39P)

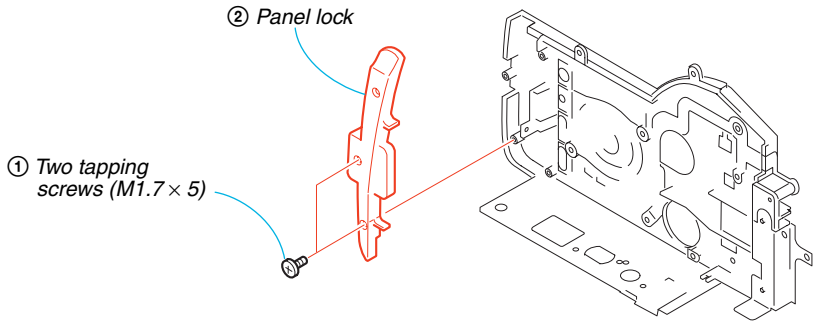
2-12. CONTROL SWITCH BLOCK (KP-CX5500) (DVD300)



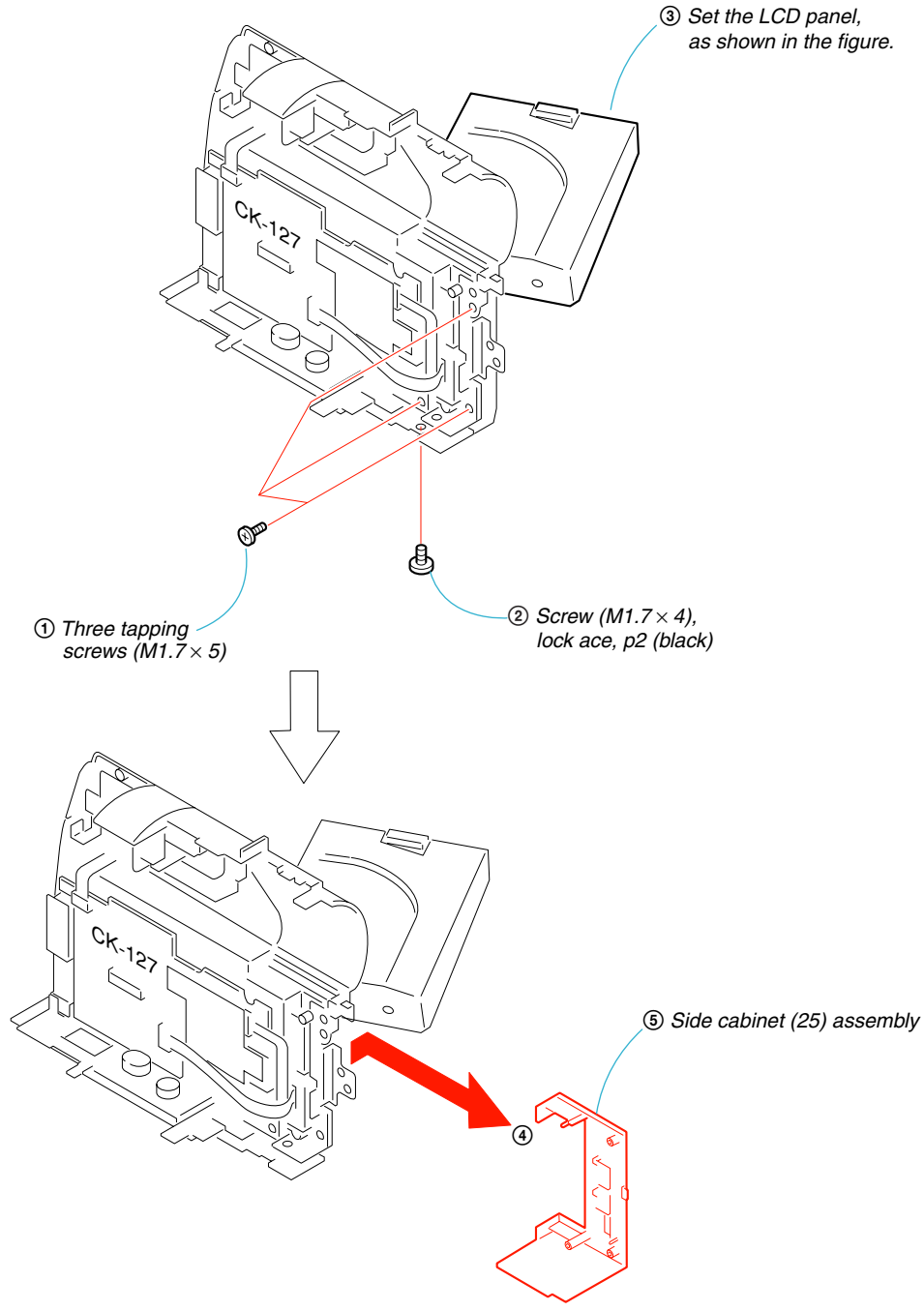
2-13. LOUD SPEAKER (1.6 cm), CABINET (R) (35) ASSEMBLY (DVD300)


⑥ Cabinet (R) (35) assembly
① Two tapping screws (M1.7 × 3.5)
③ Tripod large frame
④ Tripod (large)
⑤ Loud speaker (1.6 cm)
② Three screws (M1.7 × 4) grip

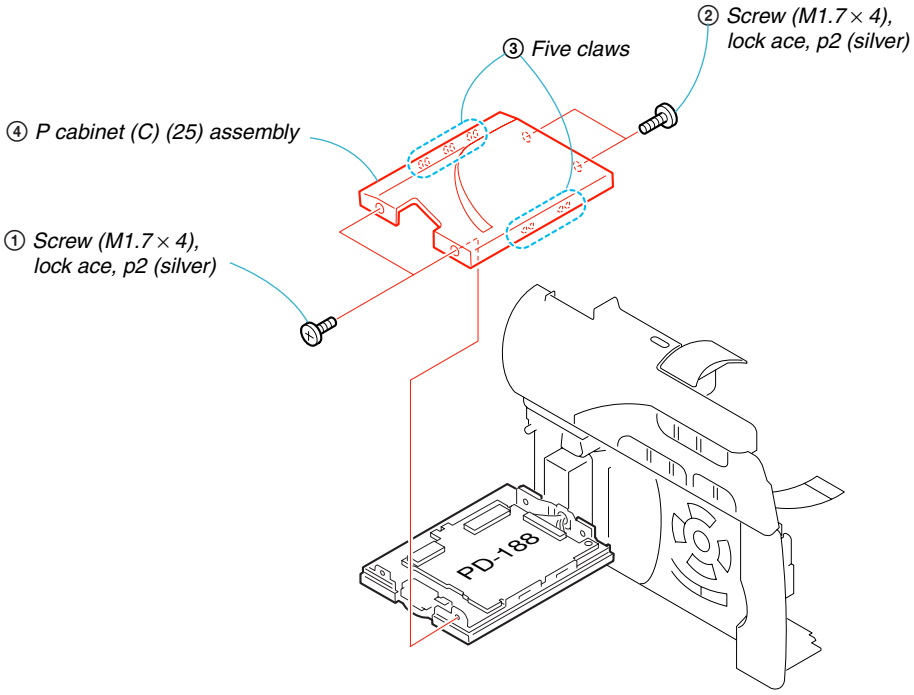
2-14. PANEL LOCK (DVD300)



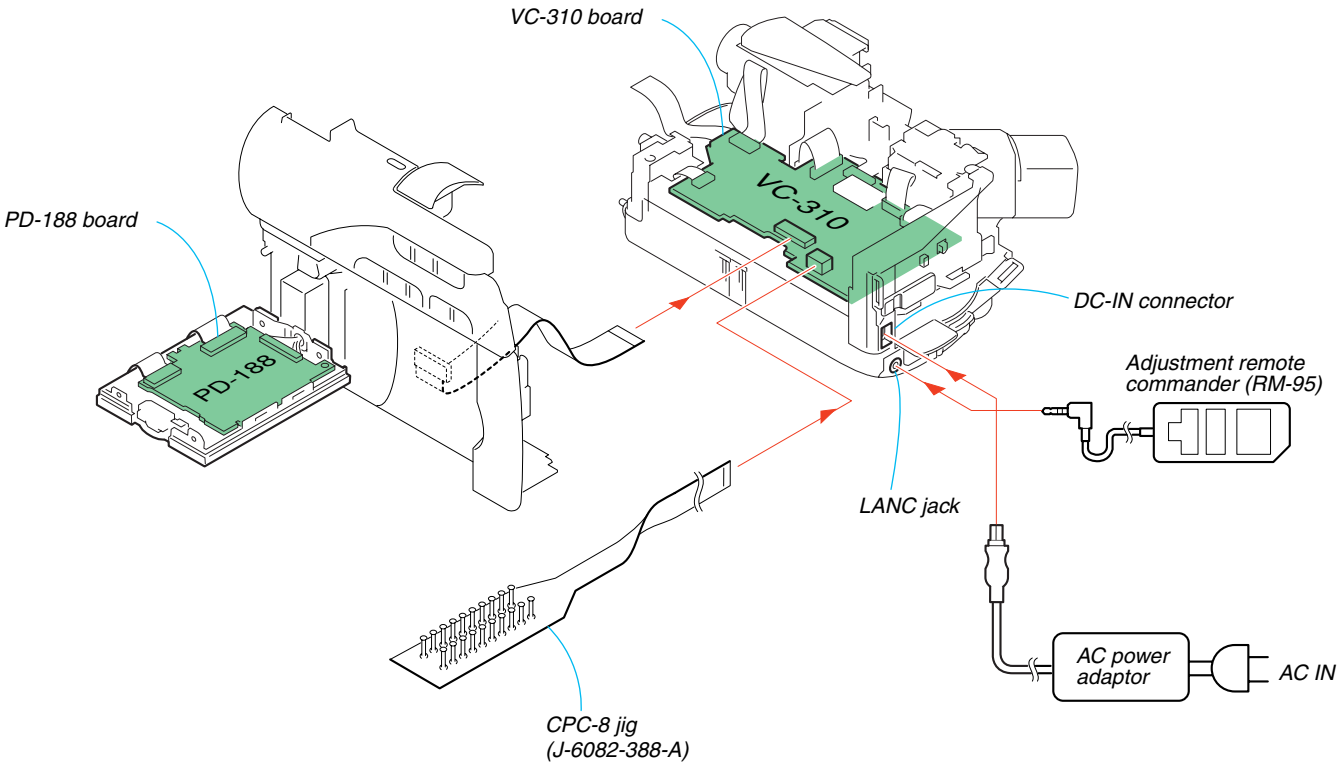
2-15. SIDE CABINET (25) ASSEMBLY (DVD200/DVD200E)


③ Set the LCD panel, as shown in the figure.
CK-127
① Three tapping screws (M1.7 × 5)
② Screw (M1.7 × 4), lock ace, p2 (black)
CK-127
⑤ Side cabinet (25) assembly
④

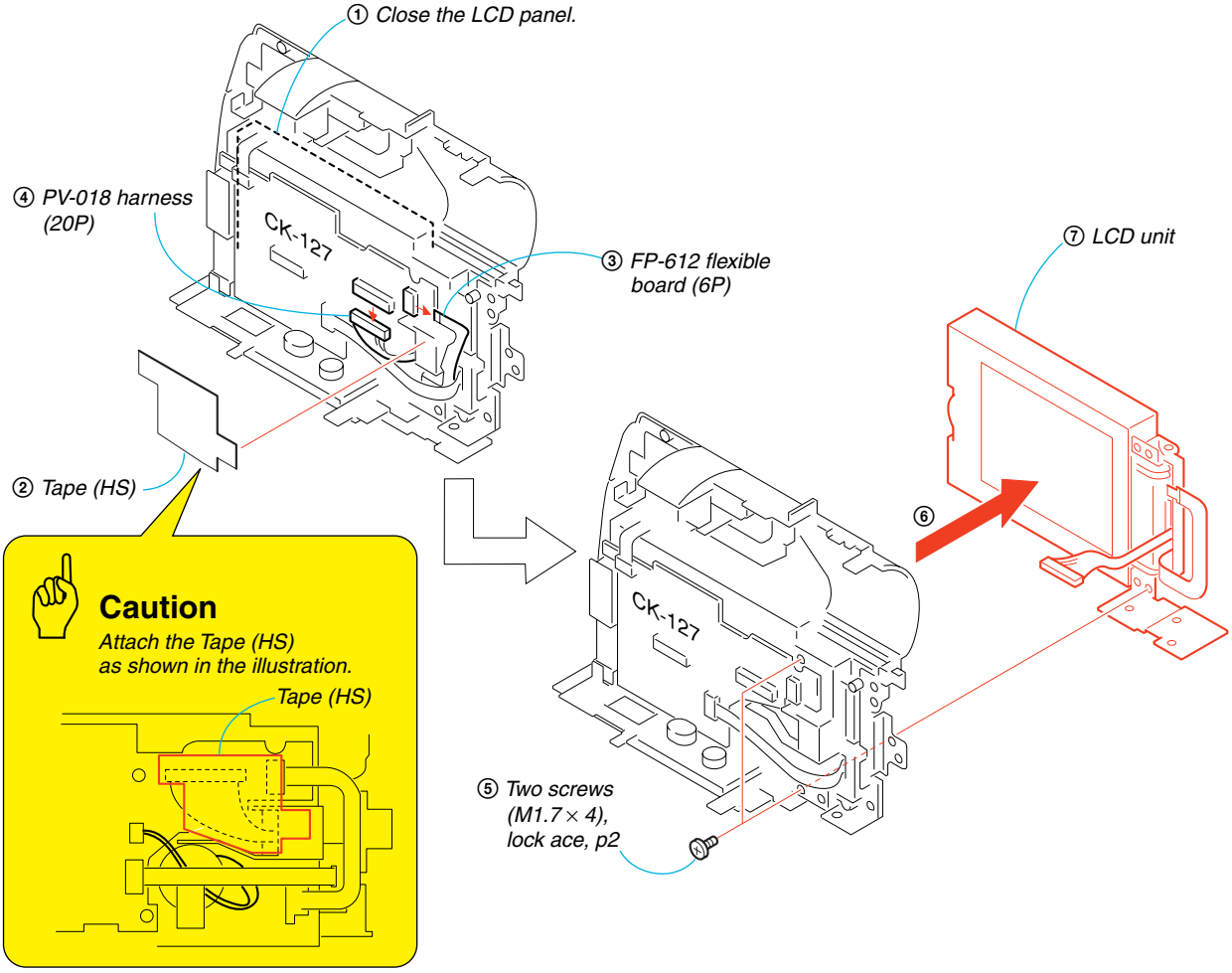
2-16. P CABINET (C) (25M) ASSEMBLY (DVD200/DVD200E)



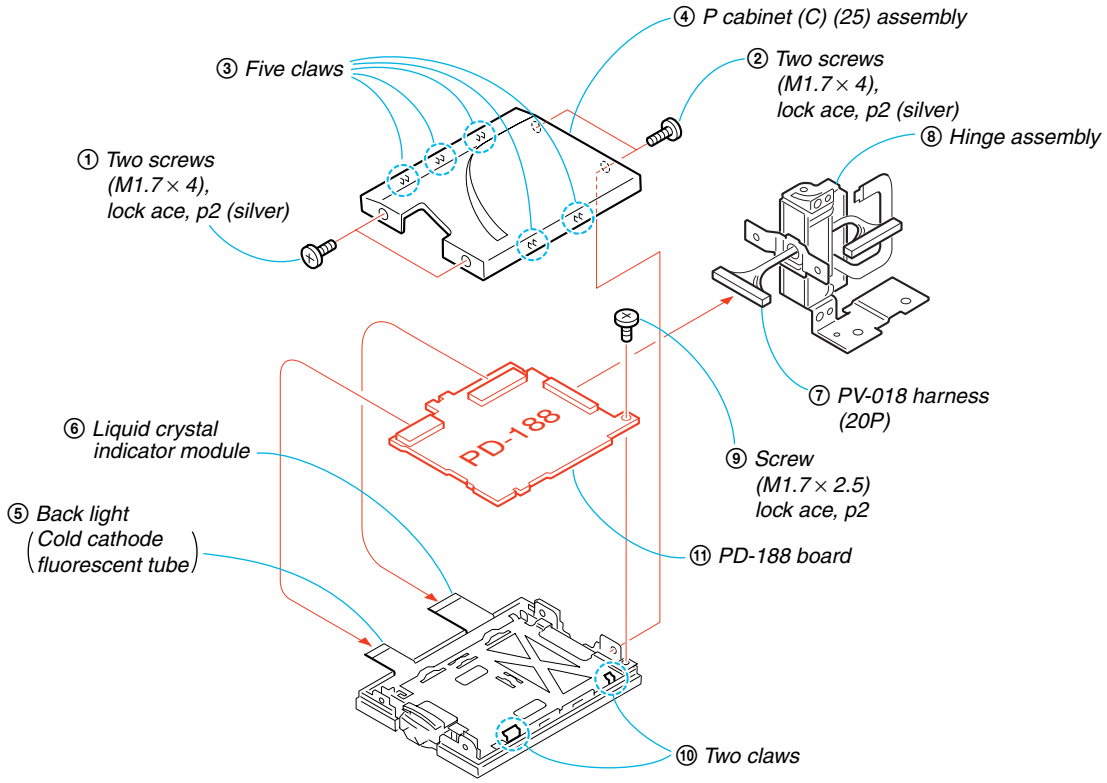
[PD-188 BOARD SERVICE POSITION]



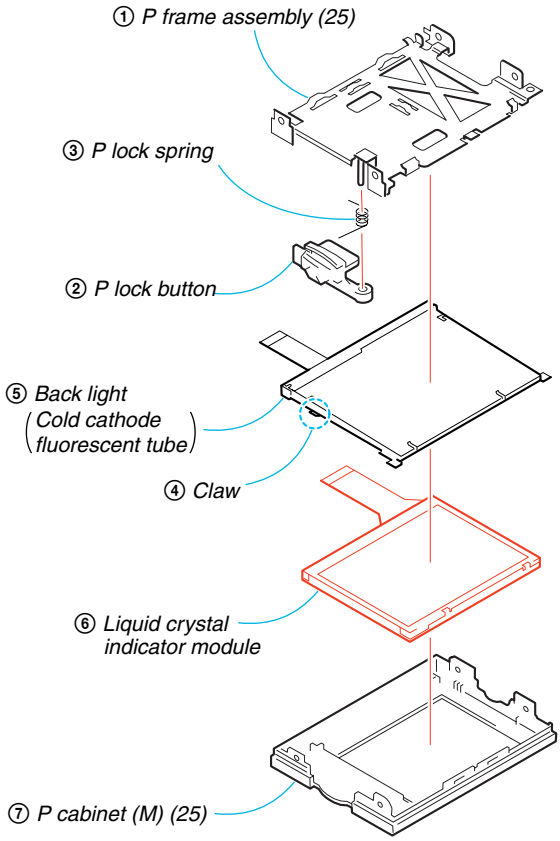
2-17. LCD UNIT (DVD200/DVD200E)



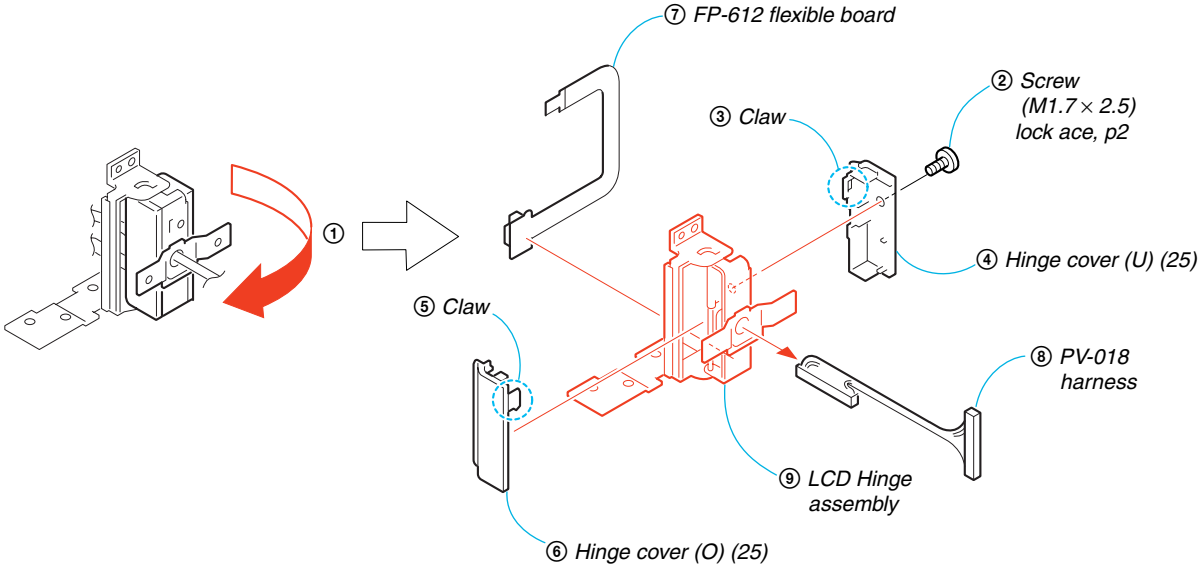
2-18. PD-188 BOARD (DVD200/DVD200E)


④ P cabinet (C) (25) assembly
③ Five claws
② Two screws (M1.7 × 4), lock ace, p2 (silver)
⑧ Hinge assembly
① Two screws (M1.7 × 4), lock ace, p2 (silver)
⑦ PV-018 harness (20P)
⑥ Liquid crystal indicator module
PD-188
⑨ Screw (M1.7 × 2.5) lock ace, p2
⑤ Back light (Cold cathode fluorescent tube)
⑪ PD-188 board
⑩ Two claws

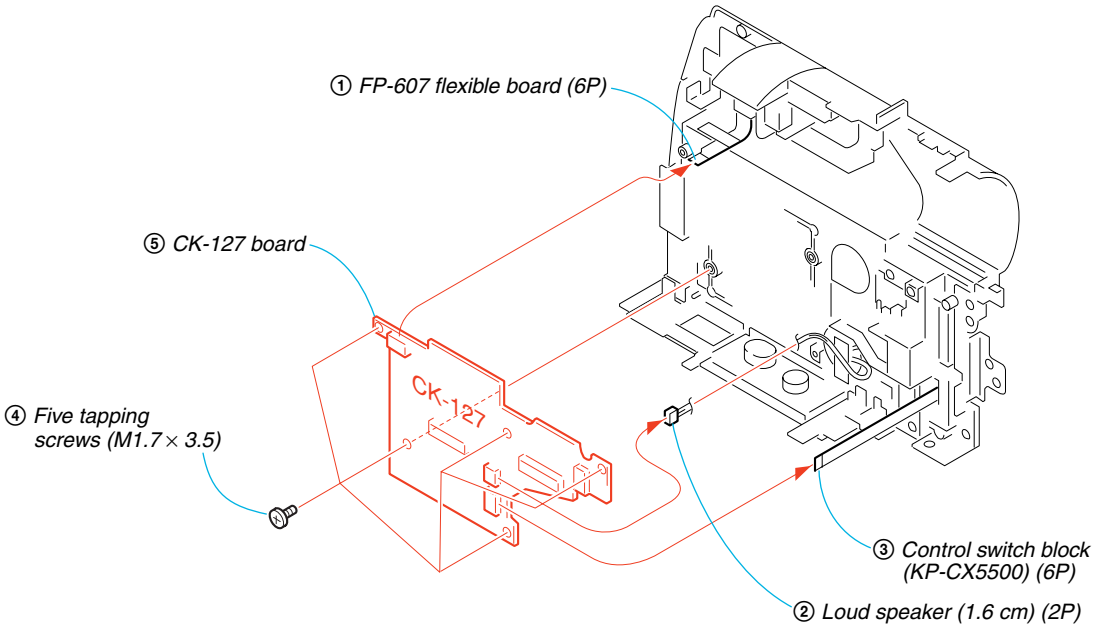
2-19. LIQUID CRYSTAL INDICATOR MODULE (DVD200/DVD200E)



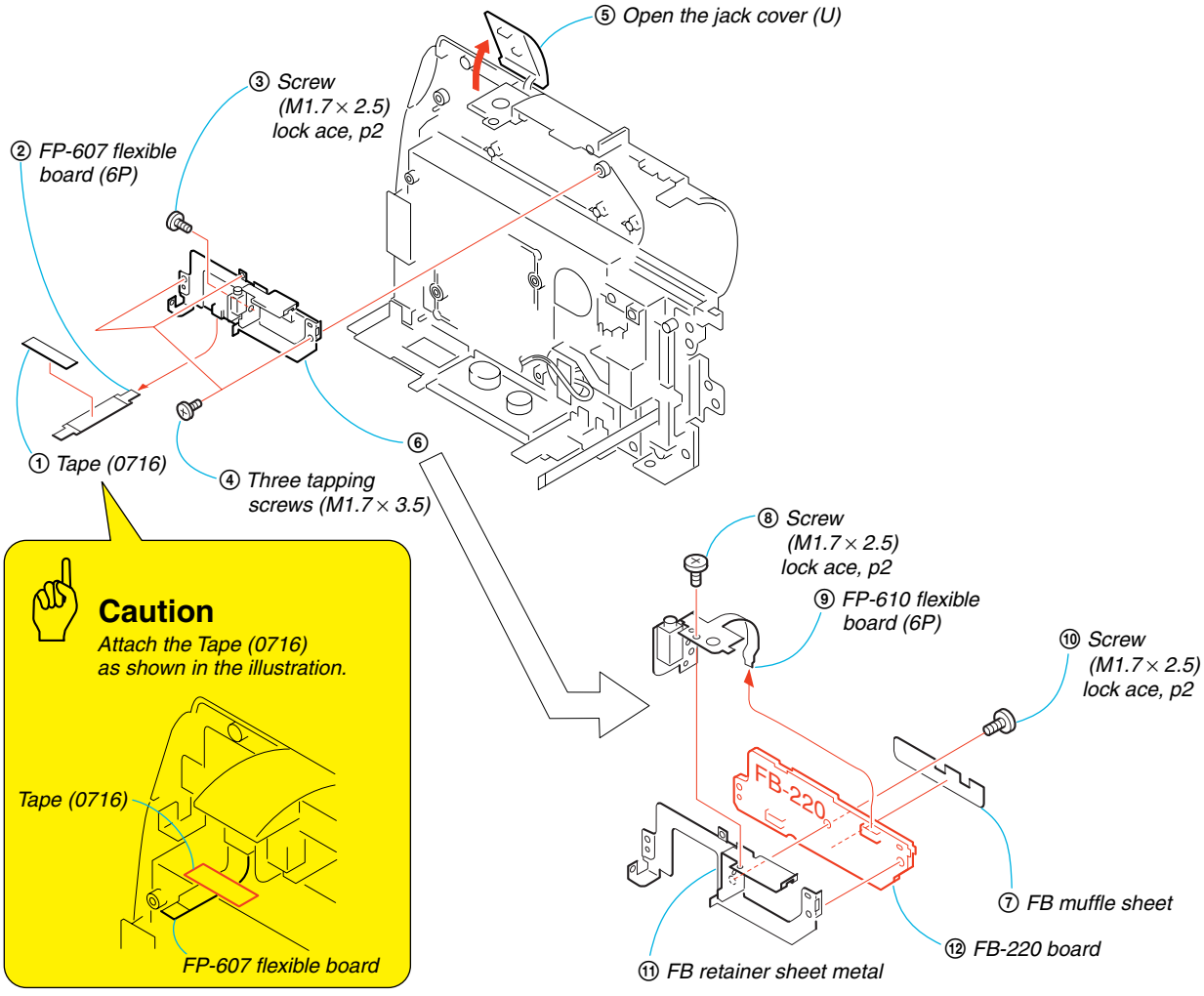
2-20. LCD HINGE ASSEMBLY (DVD200/DVD200E)



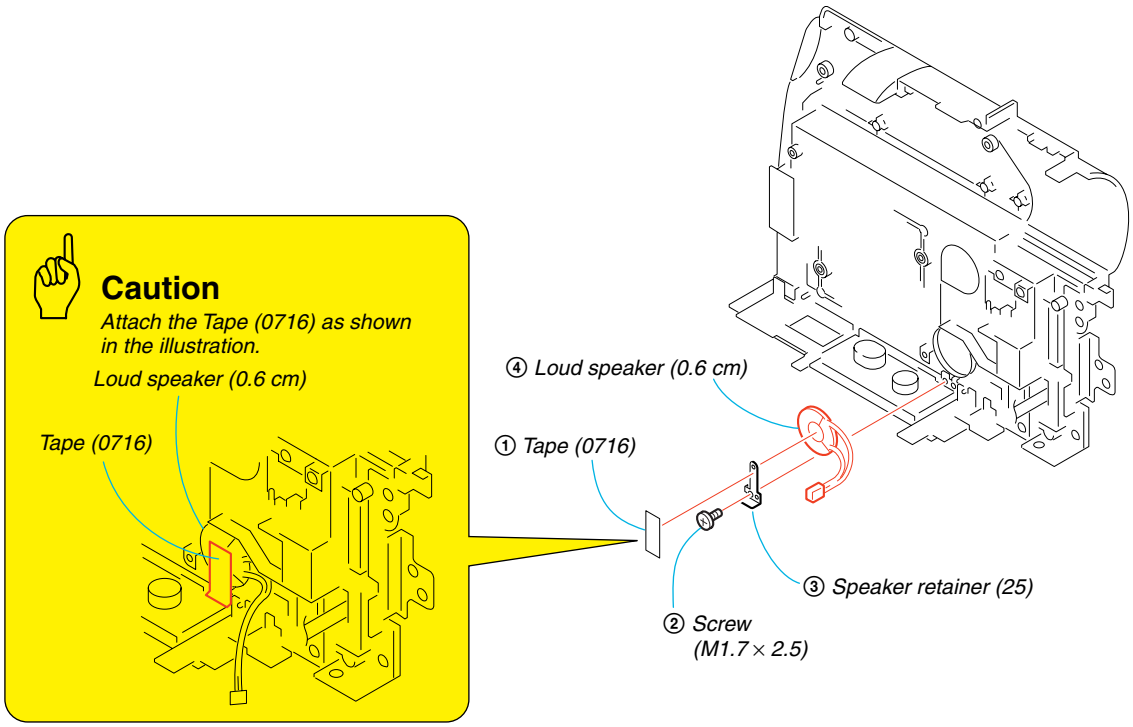
2-21. CK-127 BOARD (DVD200/DVD200E)


① FP-607 flexible board (6P)
⑤ CK-127 board
④ Five tapping screws (M1.7 × 3.5)
CK-127
③ Control switch block (KP-CX5500) (6P)
② Loud speaker (1.6 cm) (2P)

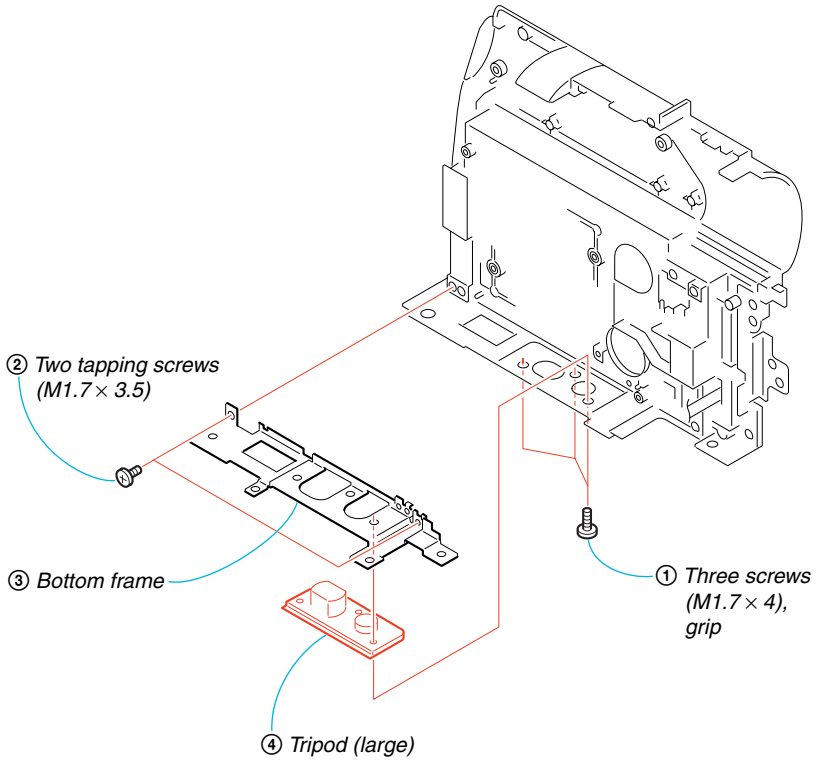
2-22. FB-220 BOARD (DVD200/DVD200E)


⑤ Open the jack cover (U)
③ Screw (M1.7 × 2.5) lock ace, p2
② FP-607 flexible board (6P)
① Tape (0716)
④ Three tapping screws (M1.7 × 3.5)
⑥
⑧ Screw (M1.7 × 2.5) lock ace, p2
⑨ FP-610 flexible board (6P)
⑩ Screw (M1.7 × 2.5) lock ace, p2
FB-220
⑦ FB muffle sheet
⑫ FB-220 board
⑪ FB retainer sheet metal
Caution
Attach the Tape (0716) as shown in the illustration.
Tape (0716)
FP-607 flexible board

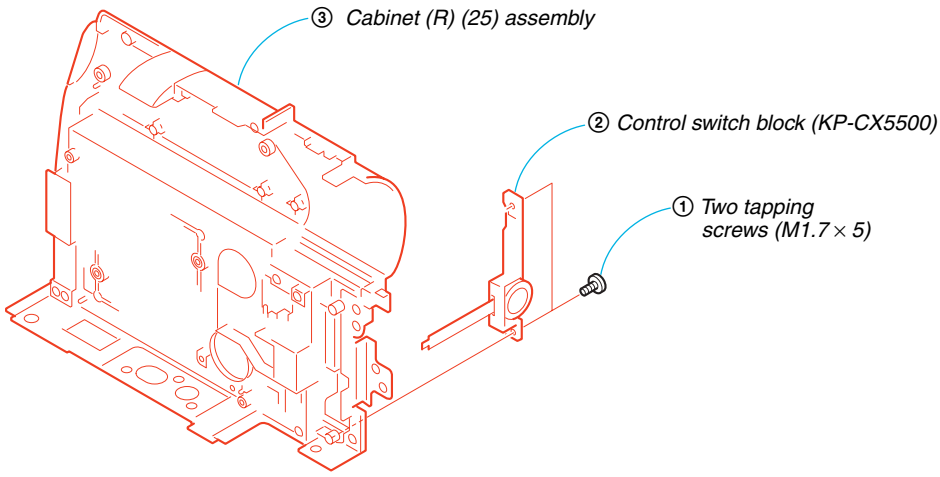
2-23. LOUD SPEAKER (1.6 cm) (DVD200/DVD200E)


Caution
Attach the Tape (0716) as shown in the illustration.
Loud speaker (0.6 cm)
Tape (0716)
④ Loud speaker (0.6 cm)
① Tape (0716)
③ Speaker retainer (25)
② Screw (M1.7 × 2.5)

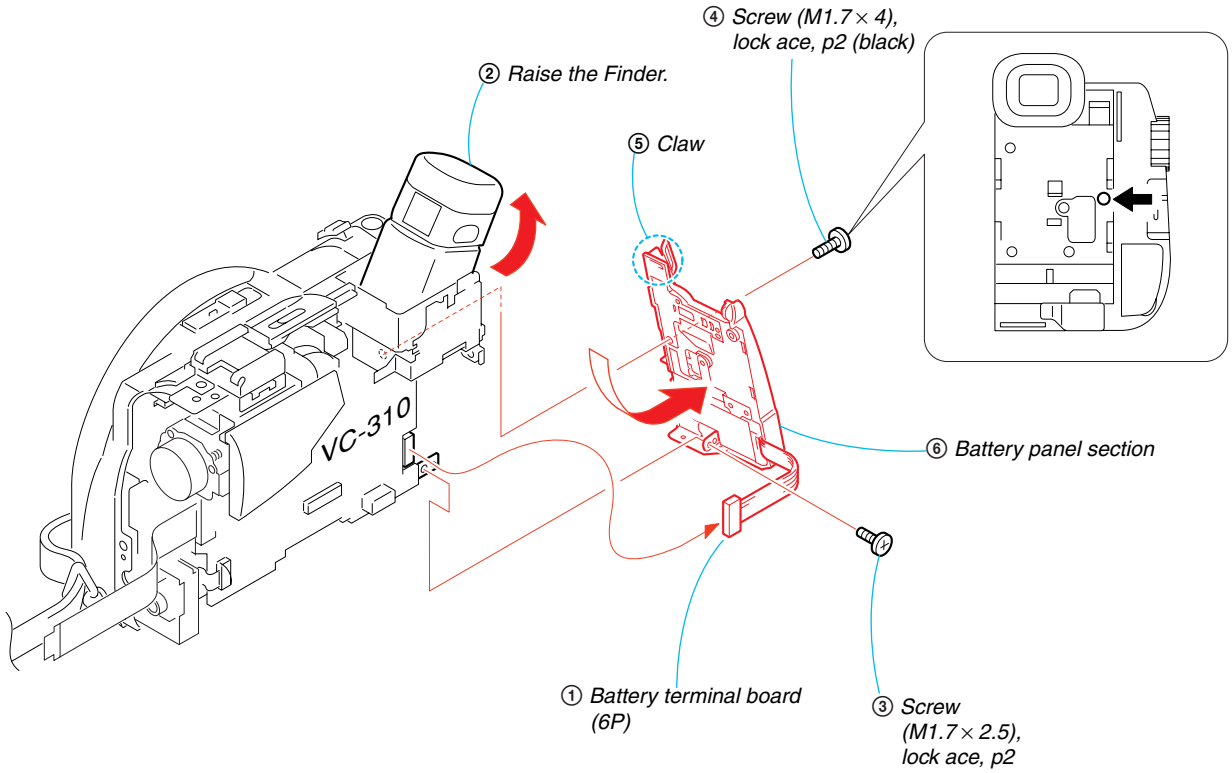
2-24. TRIPOD (LARGE) (DVD200/DVD200E)



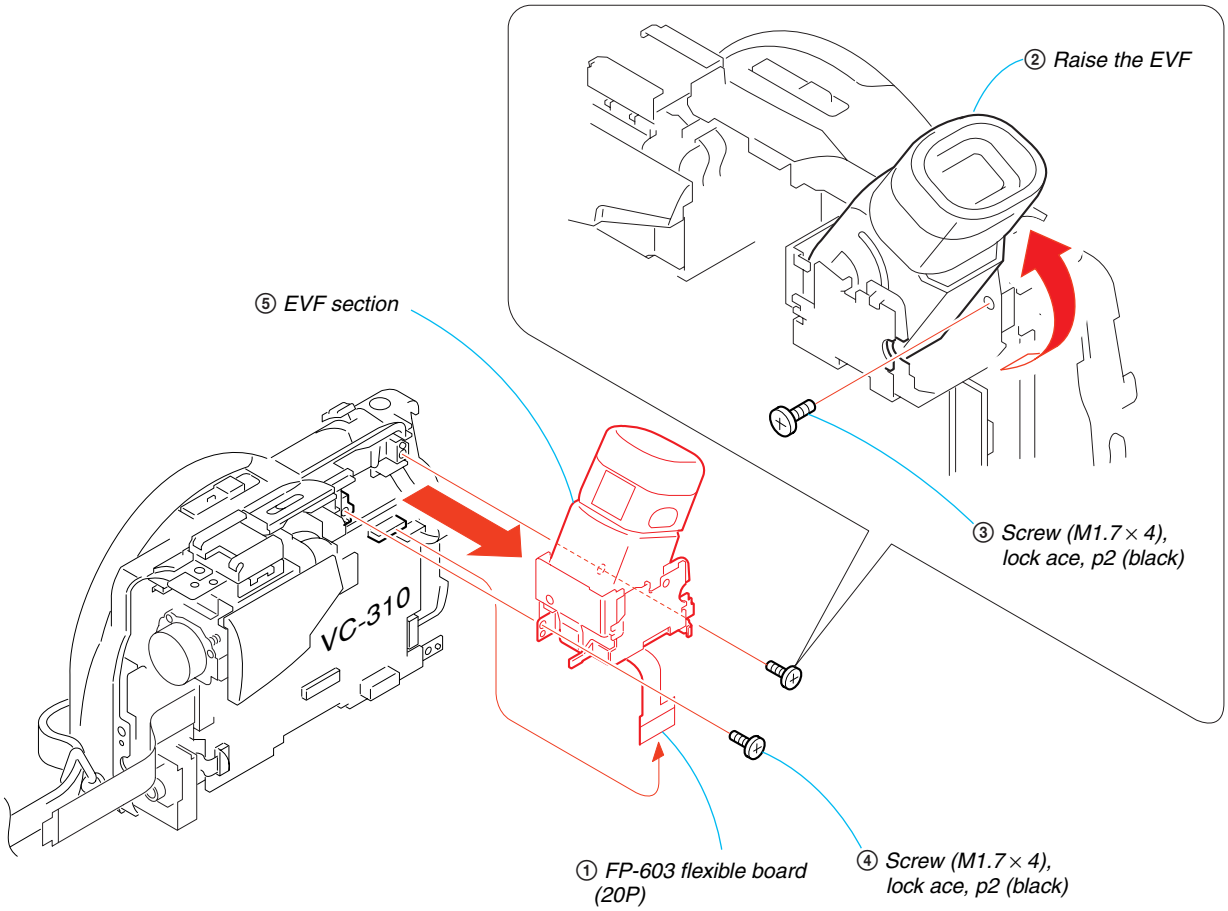
2-25. CONTROL SWITCH BLOCK (KP-CX5500), CABINET (R) (25) ASSEMBLY (DVD200/DVD200E)



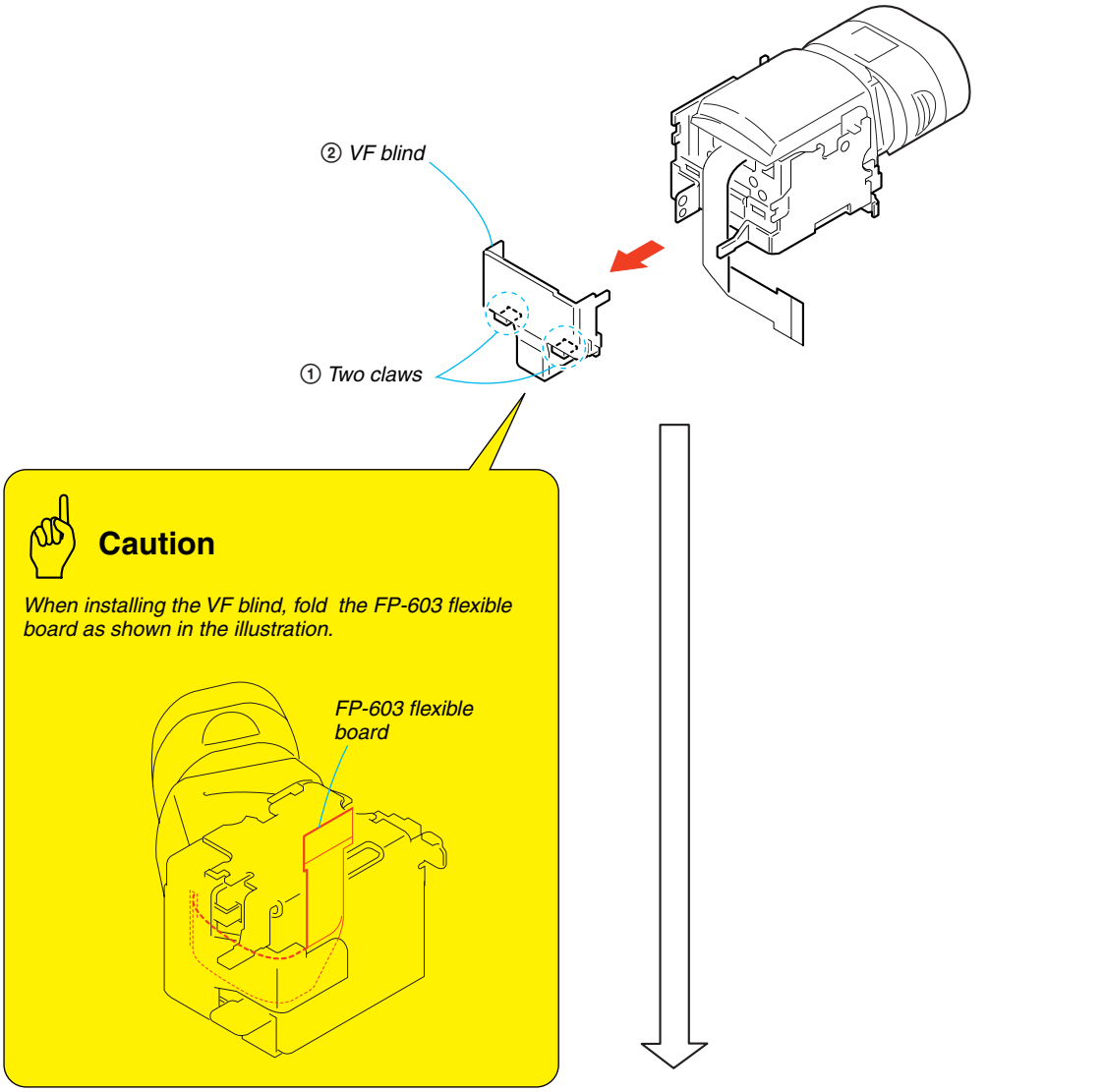
2-26. BATTERY PANEL SECTION

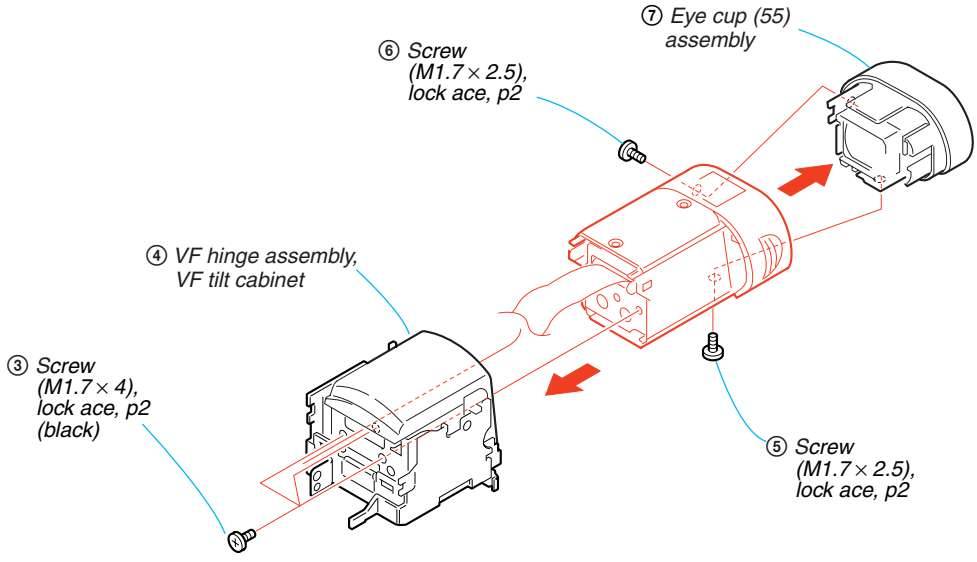

④ Screw (M1.7 × 4), lock ace, p2 (black)
② Raise the Finder.
⑤ Claw
VC-310
⑥ Battery panel section
① Battery terminal board (6P)
③ Screw (M1.7 × 2.5), lock ace, p2

2-27. EVF SECTION

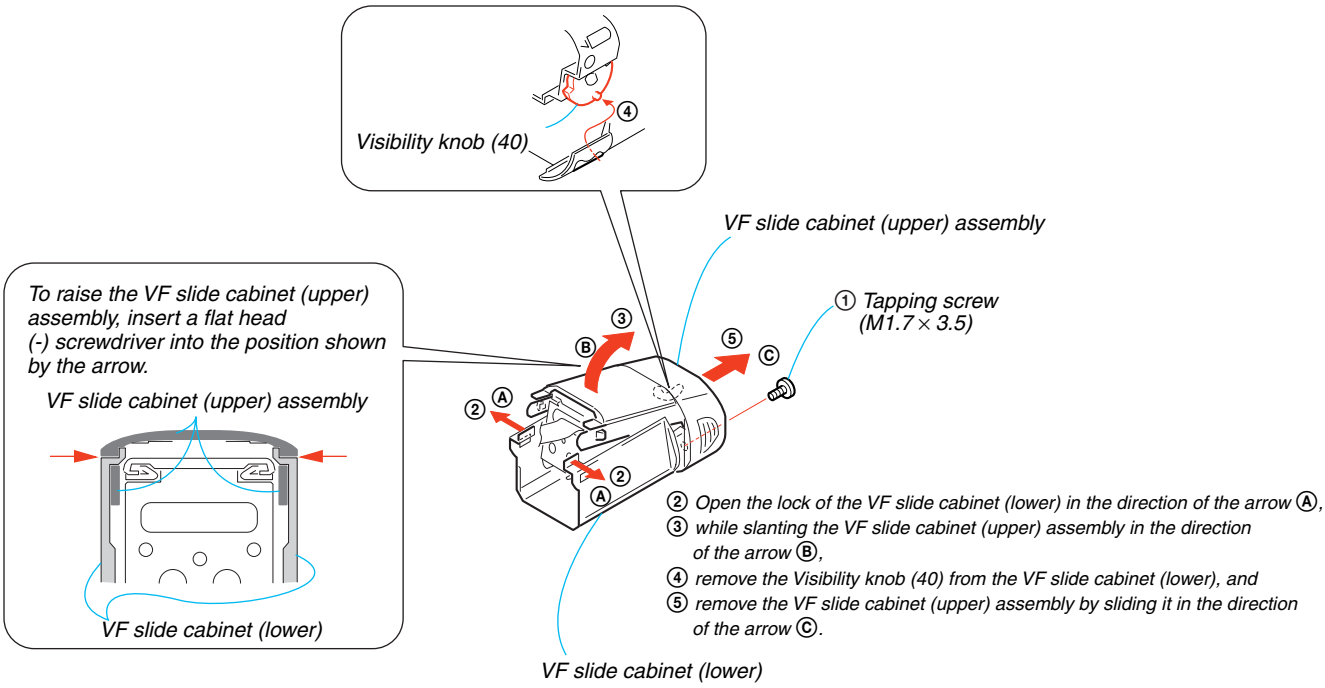


2-28. LB-084 BOARD (REMOVING OF THE EVF)-1

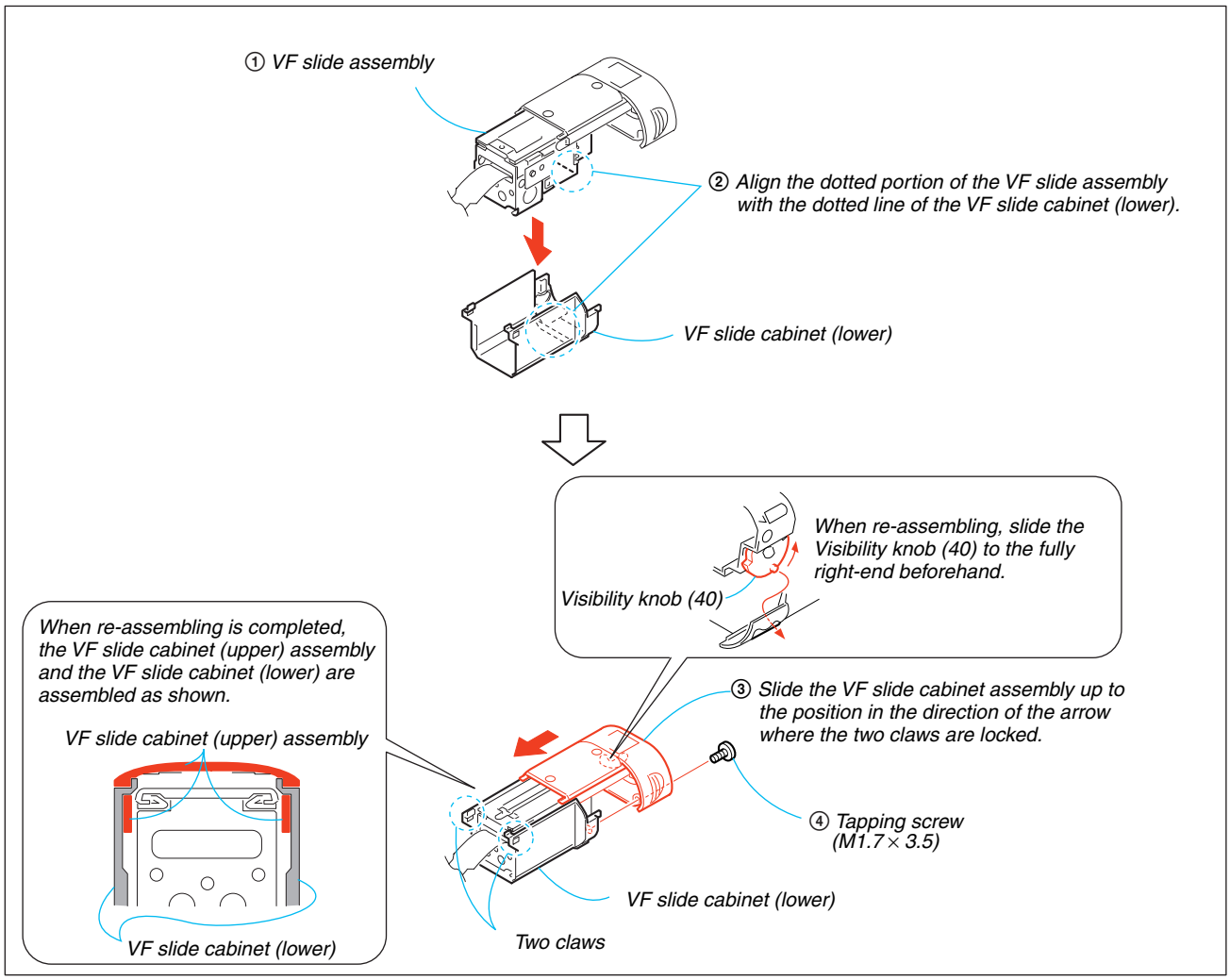

② VF blind
① Two claws
Caution
When installing the VF blind, fold the FP-603 flexible board as shown in the illustration.
FP-603 flexible board


⑦ Eye cup (55) assembly
⑥ Screw (M1.7 × 2.5), lock ace, p2
④ VF hinge assembly, VF tilt cabinet
③ Screw (M1.7 × 4), lock ace, p2 (black)
⑤ Screw (M1.7 × 2.5), lock ace, p2

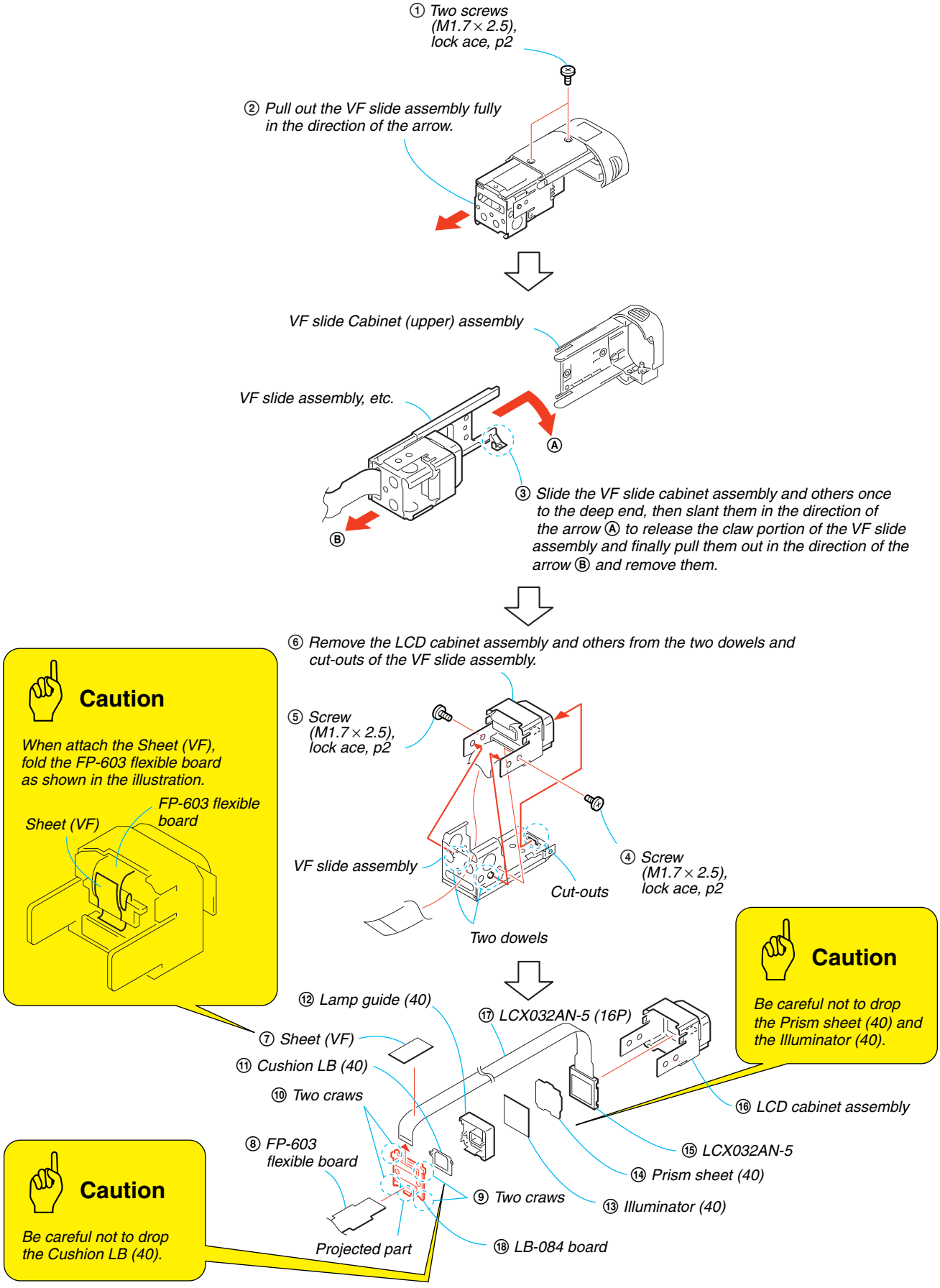
2-29. LB-084 BOARD (REMOVING OF THE EVF)-2


Visibility knob (40)
④
VF slide cabinet (upper) assembly
① Tapping screw (M1.7 × 3.5)
To raise the VF slide cabinet (upper) assembly, insert a flat head (-) screwdriver into the position shown by the arrow.
VF slide cabinet (upper) assembly
VF slide cabinet (lower)
③
Ⓑ
⑤
Ⓒ
②
Ⓐ
② Open the lock of the VF slide cabinet (lower) in the direction of the arrow Ⓐ,
③ while slanting the VF slide cabinet (upper) assembly in the direction of the arrow Ⓑ,
④ remove the Visibility knob (40) from the VF slide cabinet (lower), and
⑤ remove the VF slide cabinet (upper) assembly by sliding it in the direction of the arrow Ⓒ.
VF slide cabinet (lower)

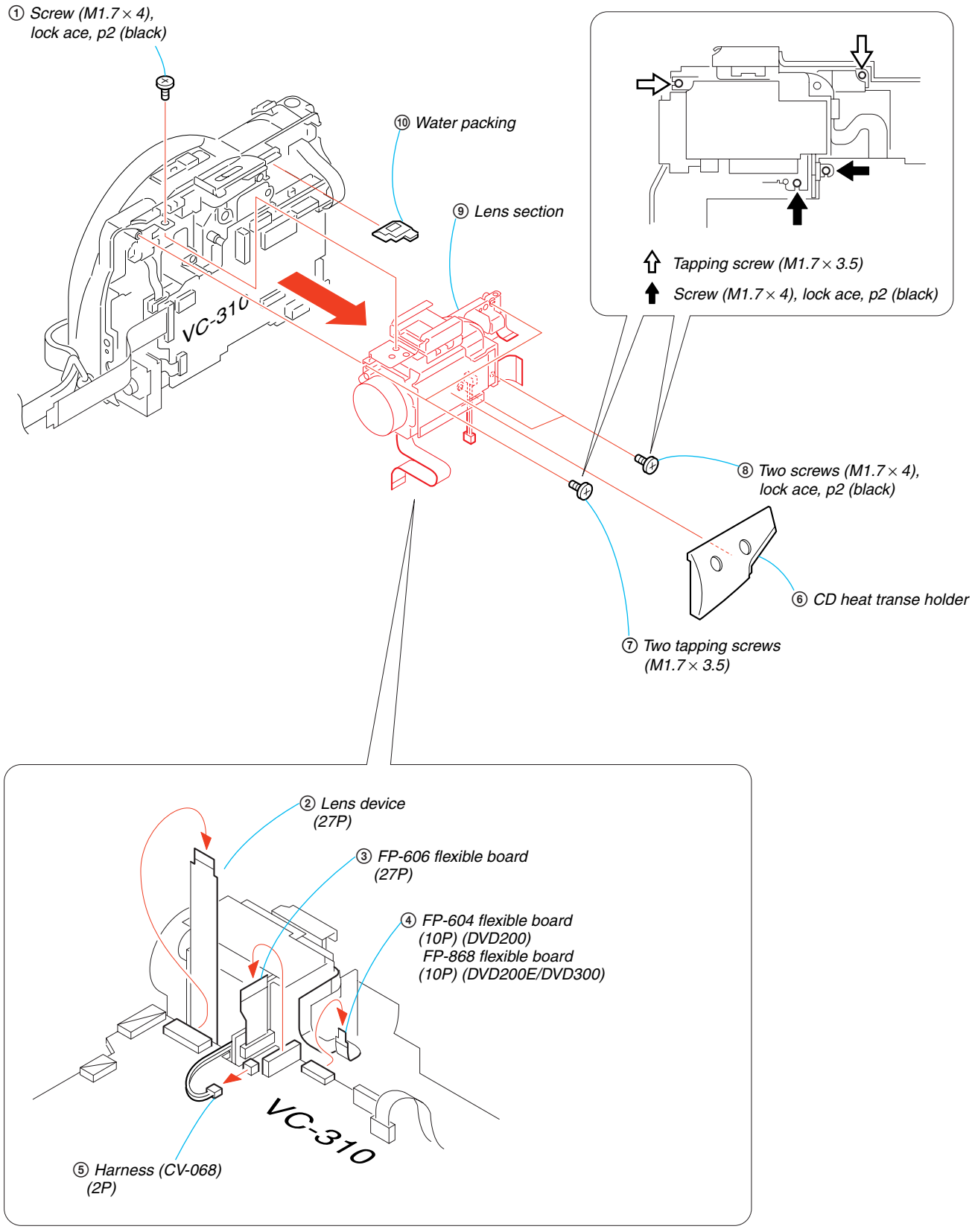
RE-ASSEMBLING THE VF SLIDE CABINET


① VF slide assembly
② Align the dotted portion of the VF slide assembly with the dotted line of the VF slide cabinet (lower).
VF slide cabinet (lower)
When re-assembling, slide the Visibility knob (40) to the fully right-end beforehand.
Visibility knob (40)
When re-assembling is completed, the VF slide cabinet (upper) assembly and the VF slide cabinet (lower) are assembled as shown.
VF slide cabinet (upper) assembly
VF slide cabinet (lower)
③ Slide the VF slide cabinet assembly up to the position in the direction of the arrow where the two claws are locked.
④ Tapping screw (M1.7 × 3.5)
VF slide cabinet (lower)
Two claws

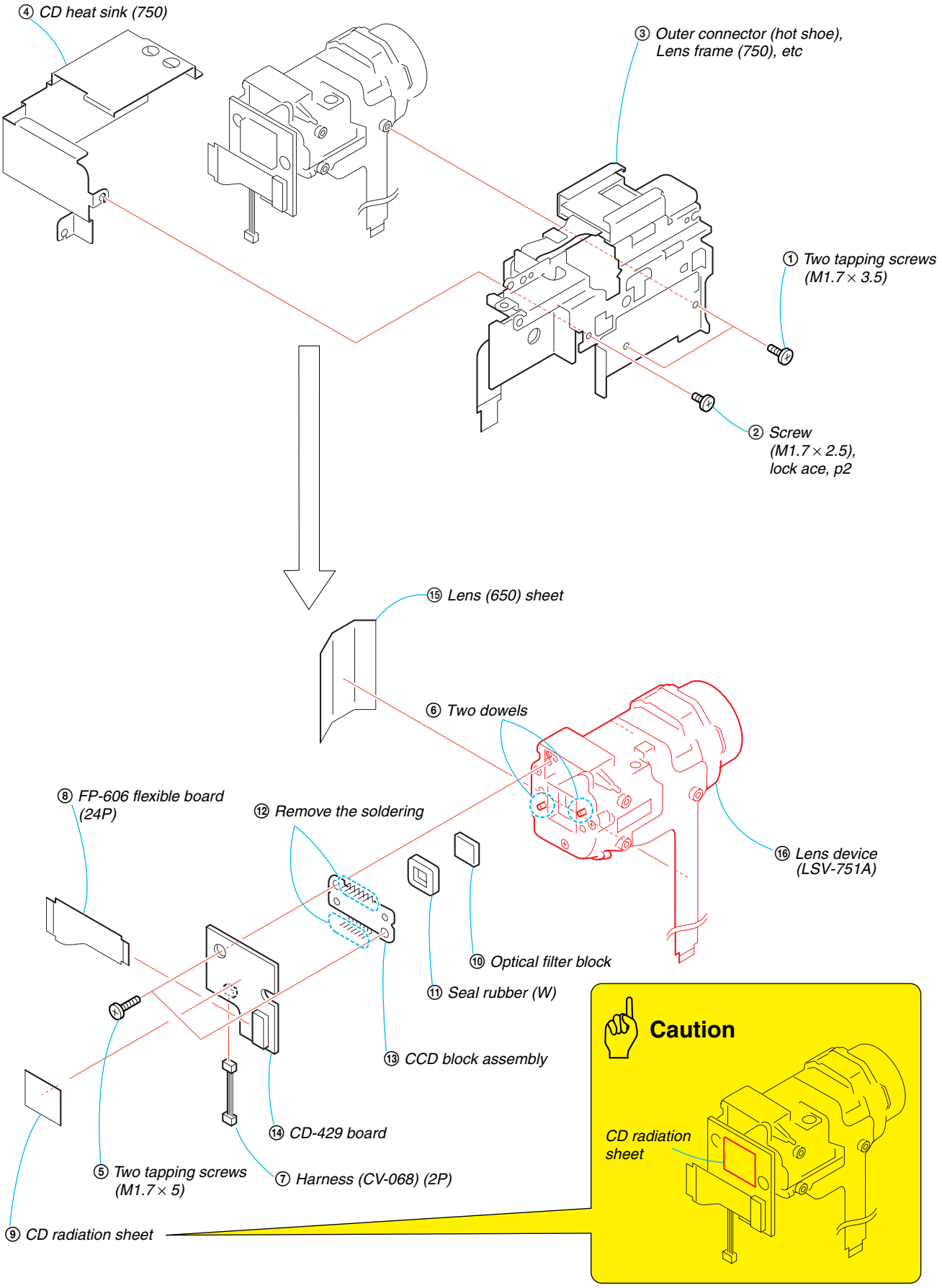
2-30. LB-084 BOARD (REMOVING OF THE EVF)-3


① Two screws (M1.7 × 2.5), lock ace, p2
② Pull out the VF slide assembly fully in the direction of the arrow.
VF slide Cabinet (upper) assembly
VF slide assembly, etc.
Ⓐ
Ⓑ
③ Slide the VF slide cabinet assembly and others once to the deep end, then slant them in the direction of the arrow Ⓐ to release the claw portion of the VF slide assembly and finally pull them out in the direction of the arrow Ⓑ and remove them.
⑥ Remove the LCD cabinet assembly and others from the two dowels and cut-outs of the VF slide assembly.
⑤ Screw (M1.7 × 2.5), lock ace, p2
VF slide assembly
④ Screw (M1.7 × 2.5), lock ace, p2
Cut-outs
Two dowels
Caution
When attach the Sheet (VF), fold the FP-603 flexible board as shown in the illustration.
Sheet (VF)
FP-603 flexible board
Caution
Be careful not to drop the Prism sheet (40) and the Illuminator (40).
⑫ Lamp guide (40)
⑰ LCX032AN-5 (16P)
⑦ Sheet (VF)
⑪ Cushion LB (40)
⑩ Two craws
⑯ LCD cabinet assembly
⑧ FP-603 flexible board
⑮ LCX032AN-5
⑭ Prism sheet (40)
⑨ Two craws
⑬ Illuminator (40)
Caution
Be careful not to drop the Cushion LB (40).
Projected part
⑱ LB-084 board

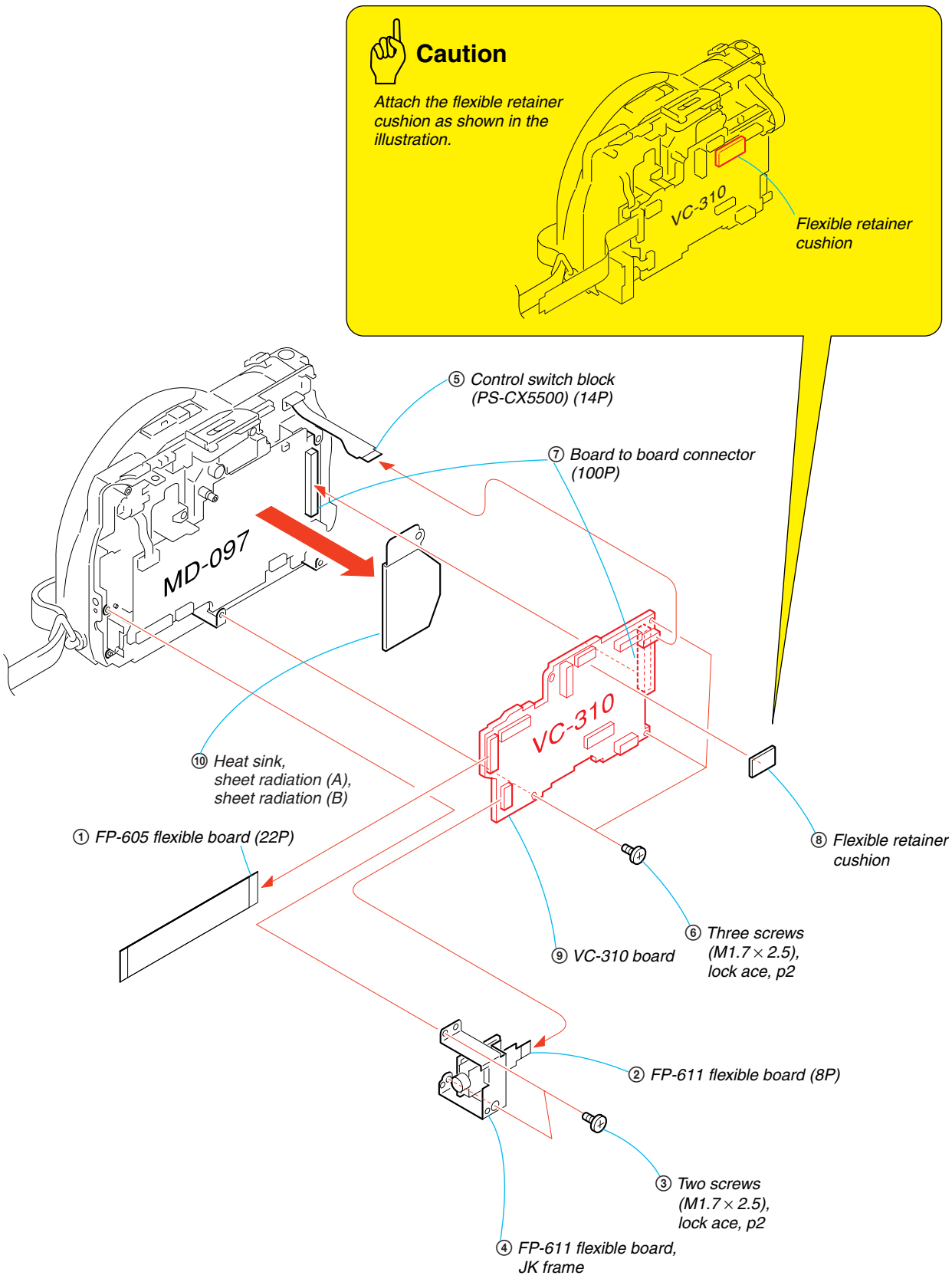
2-31. LENS SECTION


① Screw (M1.7 × 4), lock ace, p2 (black)
⑩ Water packing
⑨ Lens section
VC-310
Tapping screw (M1.7 × 3.5)
Screw (M1.7 × 4), lock ace, p2 (black)
⑧ Two screws (M1.7 × 4), lock ace, p2 (black)
⑥ CD heat transe holder
⑦ Two tapping screws (M1.7 × 3.5)
② Lens device (27P)
③ FP-606 flexible board (27P)
④ FP-604 flexible board (10P) (DVD200)
FP-868 flexible board (10P) (DVD200E/DVD300)
VC-310
⑤ Harness (CV-068) (2P)

2-32. LENS DEVICE (LSV-751A)


④ CD heat sink (750)
③ Outer connector (hot shoe), Lens frame (750), etc
① Two tapping screws (M1.7 × 3.5)
② Screw (M1.7 × 2.5), lock ace, p2
⑮ Lens (650) sheet
⑥ Two dowels
⑧ FP-606 flexible board (24P)
⑫ Remove the soldering
⑯ Lens device (LSV-751A)
⑩ Optical filter block
⑪ Seal rubber (W)
⑬ CCD block assembly
⑭ CD-429 board
⑤ Two tapping screws (M1.7 × 5)
⑦ Harness (CV-068) (2P)
⑨ CD radiation sheet
Caution
CD radiation sheet

2-33. VC-310 BOARD


Caution
Attach the flexible retainer cushion as shown in the illustration.
VC-310
Flexible retainer cushion
⑤ Control switch block (PS-CX5500) (14P)
⑦ Board to board connector (100P)
MD-097
VC-310
⑩ Heat sink, sheet radiation (A), sheet radiation (B)
① FP-605 flexible board (22P)
⑧ Flexible retainer cushion
⑨ VC-310 board
⑥ Three screws (M1.7 × 2.5), lock ace, p2
② FP-611 flexible board (8P)
③ Two screws (M1.7 × 2.5), lock ace, p2
④ FP-611 flexible board, JK frame

[SERVICE POSITION TO CHECK THE DVD DRIVE SECTION]

Connection to Check the VTR Section

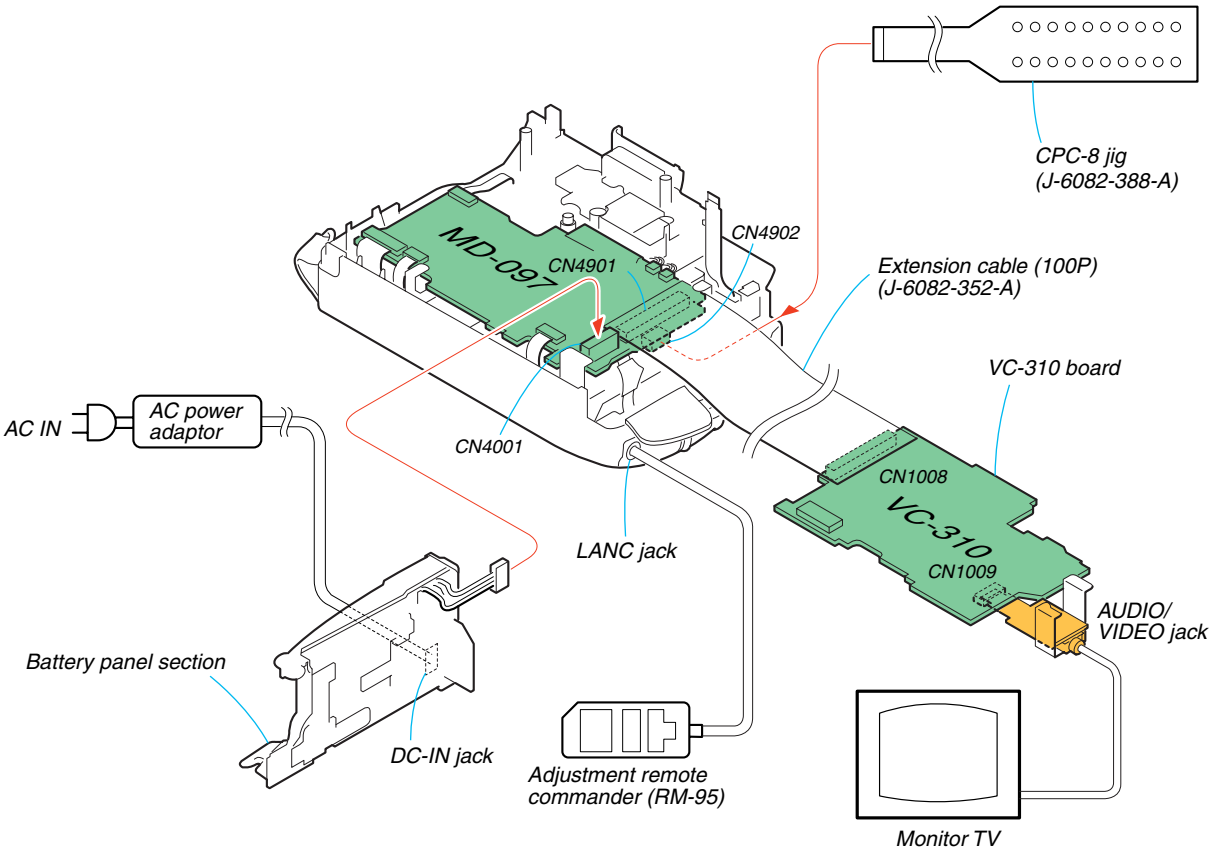
To check the DVD drive section, set the DVD drive to forced PLAY mode.
Operate the DVD drive using the adjustment remote commander (with the HOLD switch set in the OFF position).

Setting the forced PLAY mode

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 0, address: 10, and set data: 00.
3) Select page: D, address: 10, set data: 02, and press the PAUSE button of the adjustment remote commander.

Exiting the forced PLAY mode

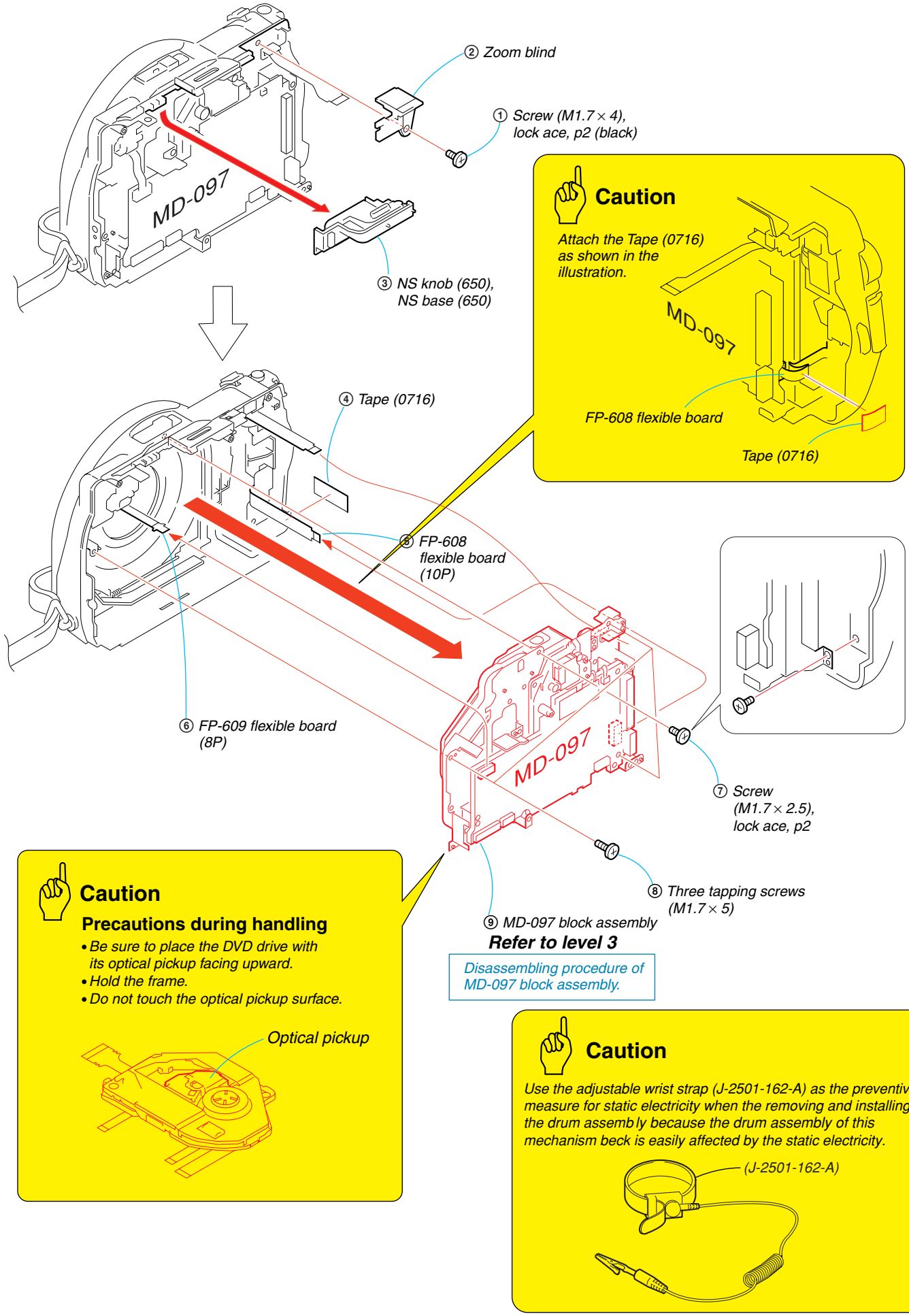
1) Select page: 0, address: 01, and set data: 01.
2) Select page: 0, address: 10, and set data: 00.
3) Select page: D, address: 10, set data: 00, and press the PAUSE button of the adjustment remote commander.
4) Select page: 0, address: 01, and set data: 00.



PROCEDURE OF REMOVING THE VC-310 BOARD.
(SERVICE POSITION) TO CHECK THE DVD DRIVE SECTION)

① 2-2. F PANEL SECTION ..... (page 2-3)
② 2-4. CABINET (R) SECTION ..... (page 2-4)
③ 2-26. BATTERY PANEL SECTION..... (page 2-16)
④ 2-27. EVF SECTION..... (page 2-17)
⑤ 2-31. LENS SECTION..... (page 2-21)
⑥ 2-33. VC-310 BOARD..... (page 2-23)

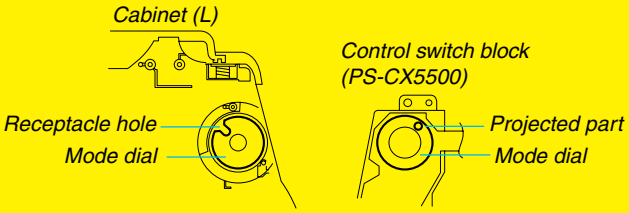
2-34. MD-097 BLOCK ASSEMBLY


② Zoom blind
① Screw (M1.7 × 4), lock ace, p2 (black)
MD-097
③ NS knob (650), NS base (650)
④ Tape (0716)
⑤ FP-608 flexible board (10P)
⑥ FP-609 flexible board (8P)
MD-097
⑦ Screw (M1.7 × 2.5), lock ace, p2
⑧ Three tapping screws (M1.7 × 5)
⑨ MD-097 block assembly
Refer to level 3
Disassembling procedure of MD-097 block assembly.
Caution
Attach the Tape (0716) as shown in the illustration.
MD-097
FP-608 flexible board
Tape (0716)
Caution
Precautions during handling
• Be sure to place the DVD drive with its optical pickup facing upward.
• Hold the frame.
• Do not touch the optical pickup surface.
Optical pickup
Caution
Use the adjustable wrist strap (J-2501-162-A) as the preventive measure for static electricity when the removing and installing the drum assembly because the drum assembly of this mechanism beck is easily affected by the static electricity.
(J-2501-162-A)

2-35. CONTROL SWITCH BLOCK (PS-CX5500)

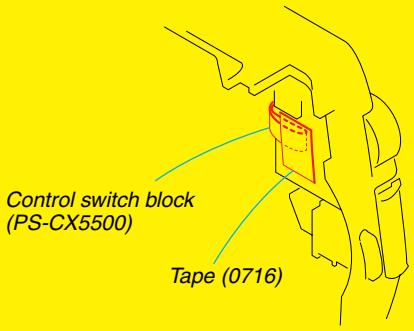
Caution

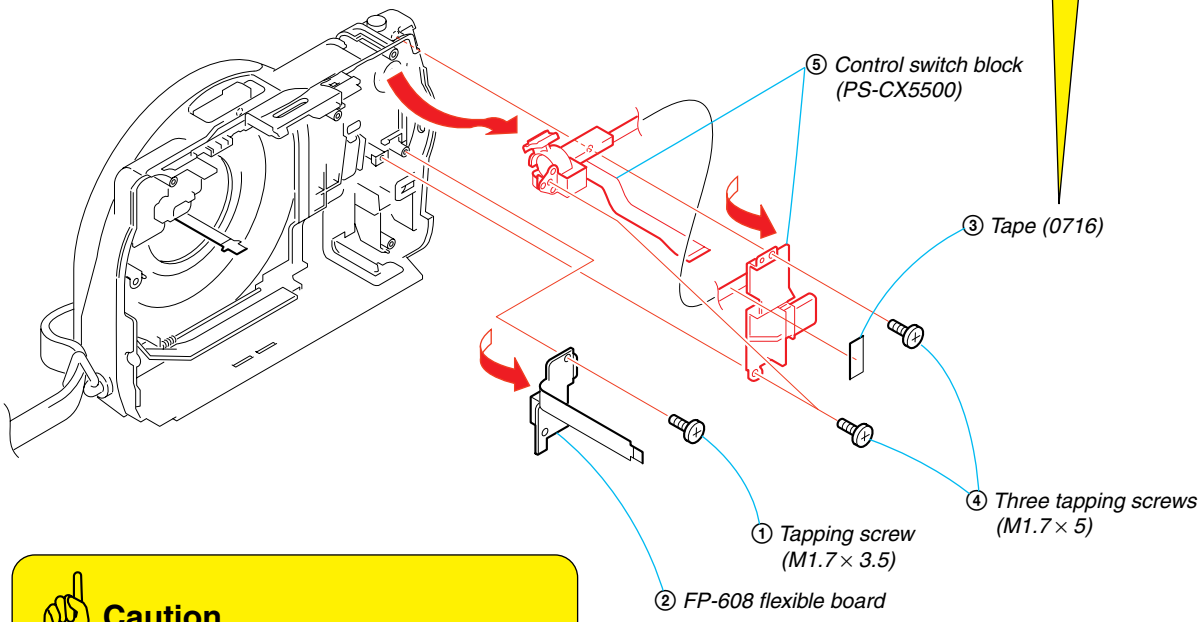
Align the hole of the receptacle with the projection of the projected part, and install the Control switch block (PS-CX5500).



Caution

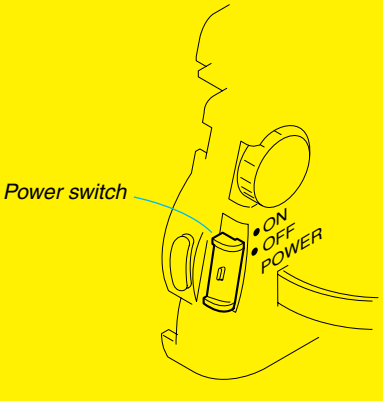
Attach the Tape (0716) as shown in the illustration.



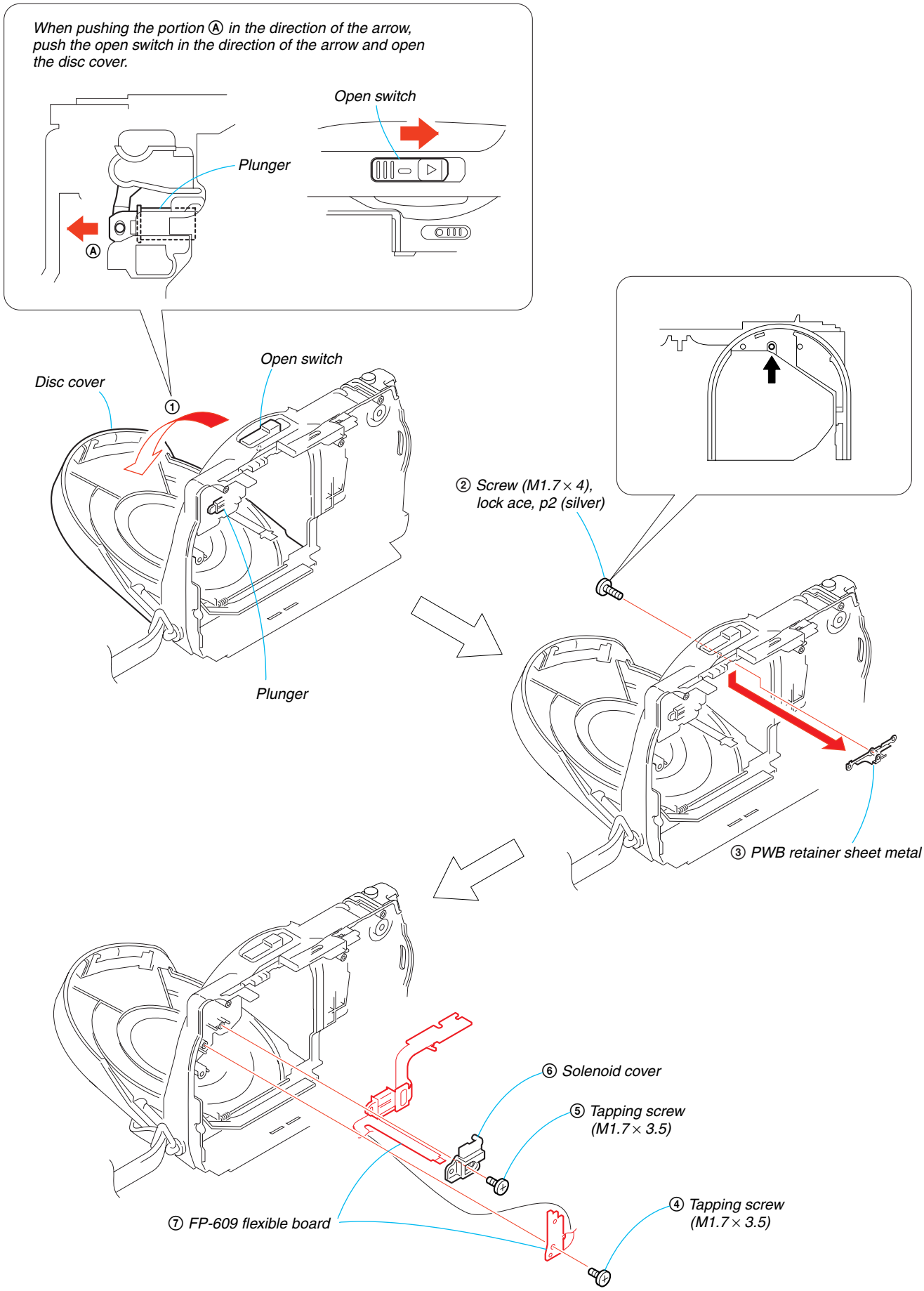


Caution

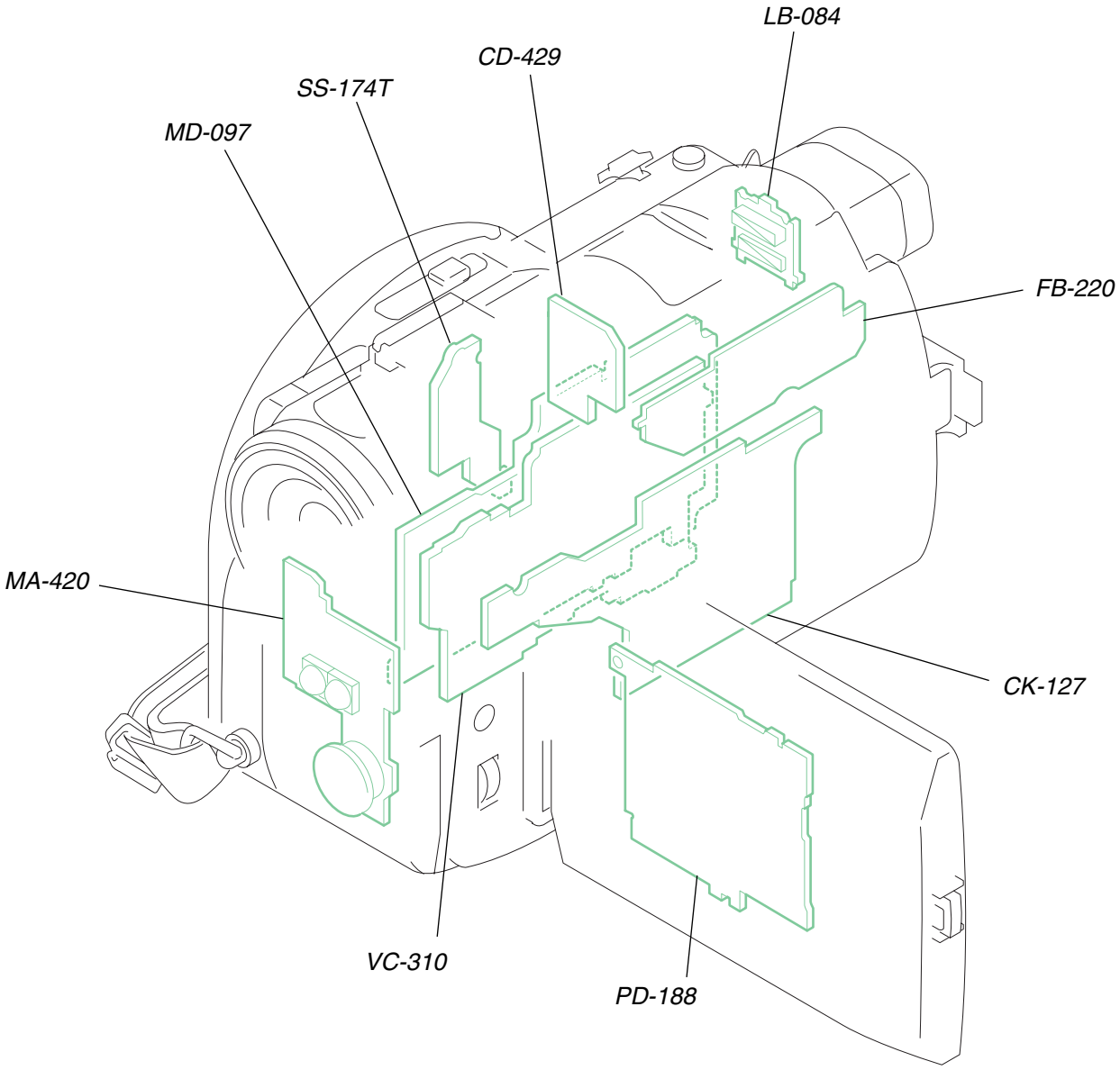
When installing the Control switch block (PS-CX5500), make the power switch of cabinet (L) section into the position of OFF.



2-36. FP-609 FLEXIBLE BOARD

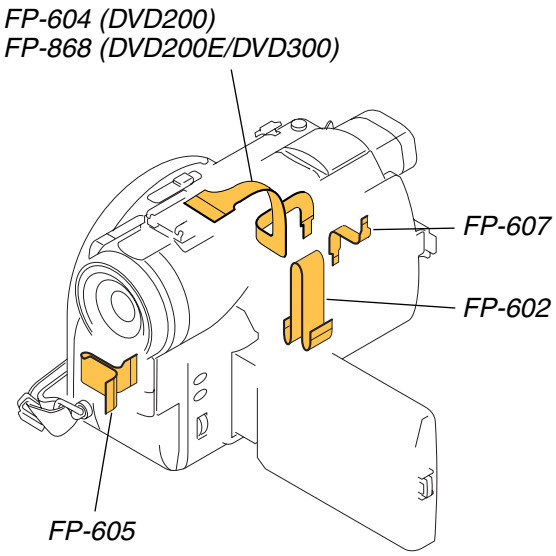

When pushing the portion Ⓐ in the direction of the arrow, push the open switch in the direction of the arrow and open the disc cover.
Open switch
Plunger
Ⓐ
Disc cover
Open switch
①
Plunger
② Screw (M1.7 × 4), lock ace, p2 (silver)
③ PWB retainer sheet metal
⑥ Solenoid cover
⑤ Tapping screw (M1.7 × 3.5)
⑦ FP-609 flexible board
④ Tapping screw (M1.7 × 3.5)

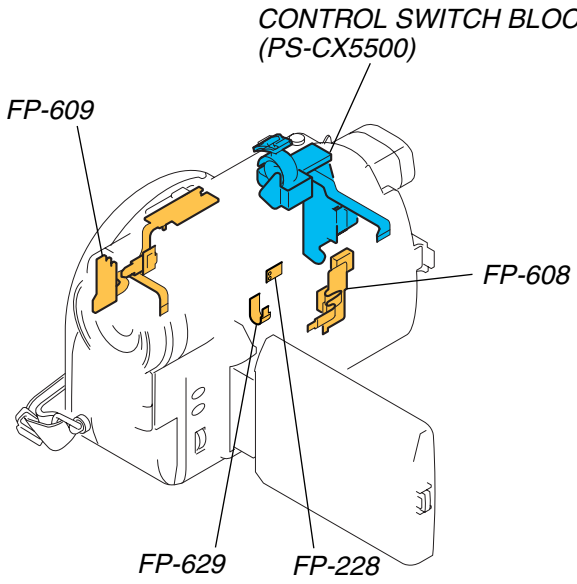
2-37. CIRCUIT BOARDS LOCATION

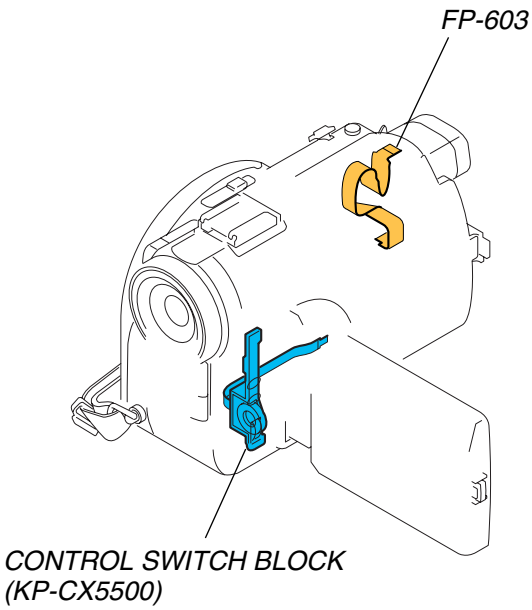


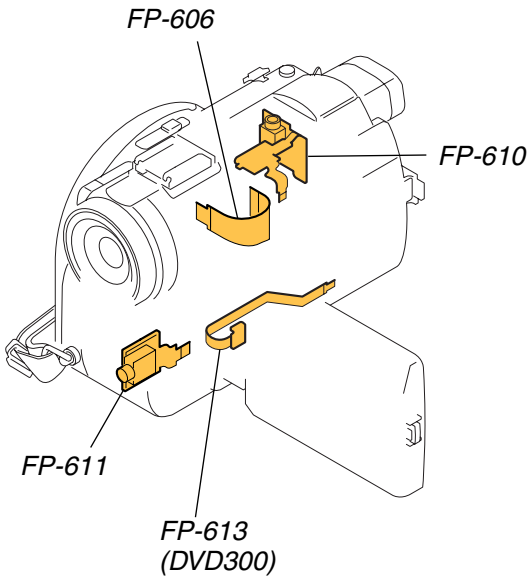
NAME	FUNCTION
CD-429	CCD IMAGER
CK-127	CONNECTOR, FUNCTION SWITCH
FB-220	FUNCTION SWITCH
LB-084	EVF CONNECTOR, EVF BACK LIGHT
MA-420	PITCH/YAW SENSOR, REMOTE SENSOR, MIC
MD-097	RF SKEW SENSOR, DVD DSP, MECHA DRIVE, UCON, FLASH, LATCH, USB I/F, CONNECTOR, DC/DC CONVERTER
PD-188	LCD DRIVE, BACK LIGHT DRIVE
SS-174T	TSB SHOCK SENSOR
VC-310	DC/DC CONVERTER, A/D CONVERTER, TIMING GENERATOR, EVR, CAMERA PROCESS, LENS DRIVE, DVD SYSTEM CONTROL, 128M SDRAM, 16M FCRAM, DVD CODEC, 64M SDRAM, VIDEO IN/OUT, VIDEO A/D CONVERTER, EVF DRIVE, CAMERA CONTROL, HI CONTROL, HI/DIGITAL STILL CONTROL, 32M FLASH MEMORY, AUDIO I/O, MIC AMP, PITCH/YAW SENSOR AMP, CONNECTOR, DD CONNECTOR

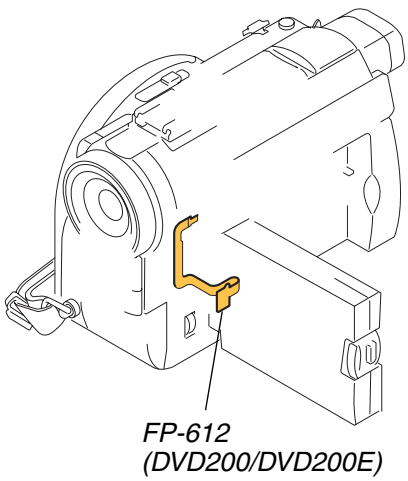
2-38. FLEXIBLE BOARDS LOCATION











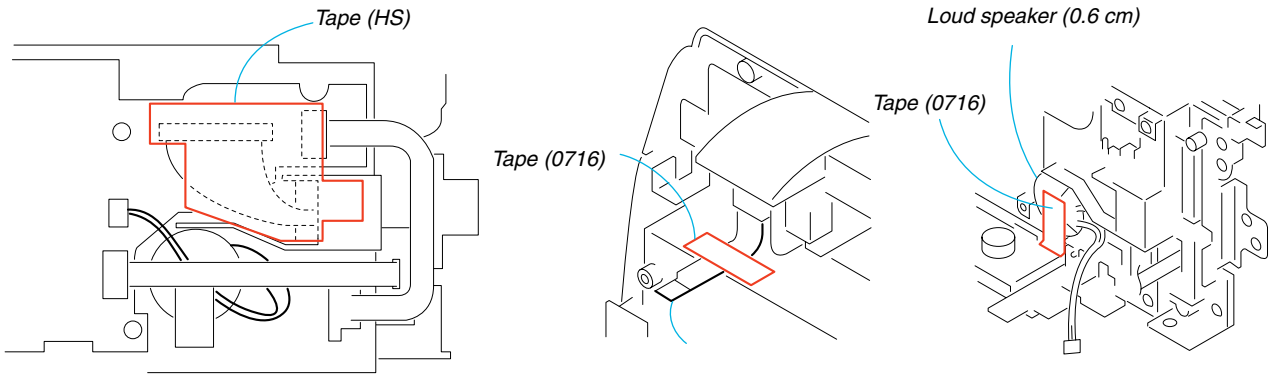
Disassembling procedure of MD-097 block assembly are not shown. Pages from 2-30 to 2-32 are not shown.

2003.08.28

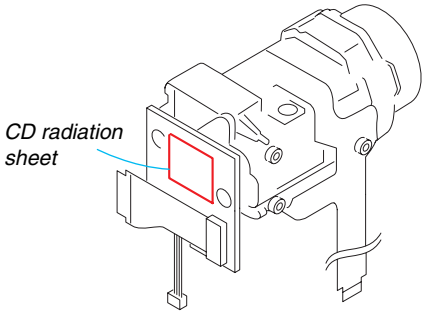
HELP

Sheet attachment positions and procedures of processing the flexible boards/harnesses are shown.

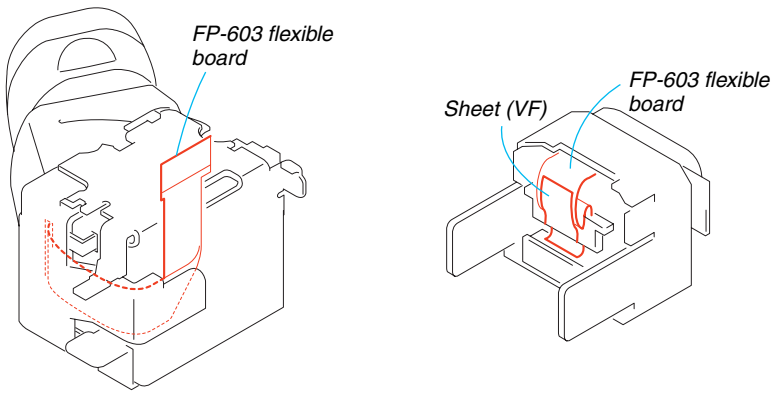
CABINET (R) SECTION (DVD200)



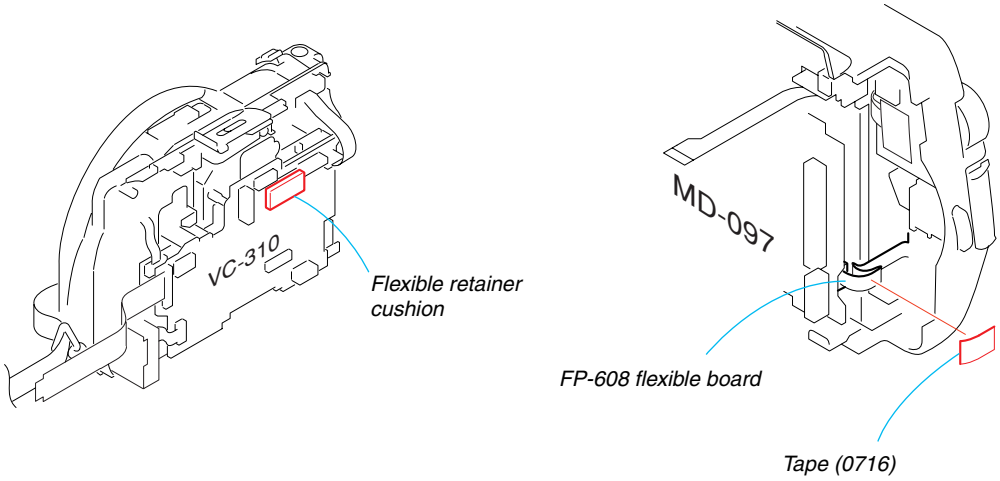
LENS SECTION



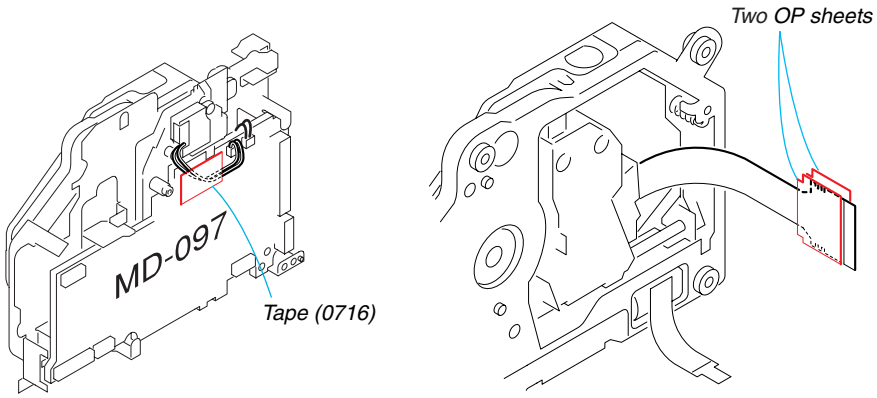
EVF SECTION



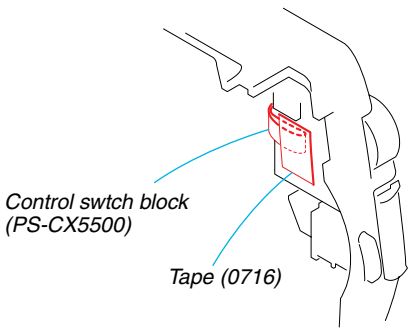
OVERALL



MD SECTION



CABINET (L) SECTION



HELP

COVER

3. BLOCK DIAGRAMS

Link

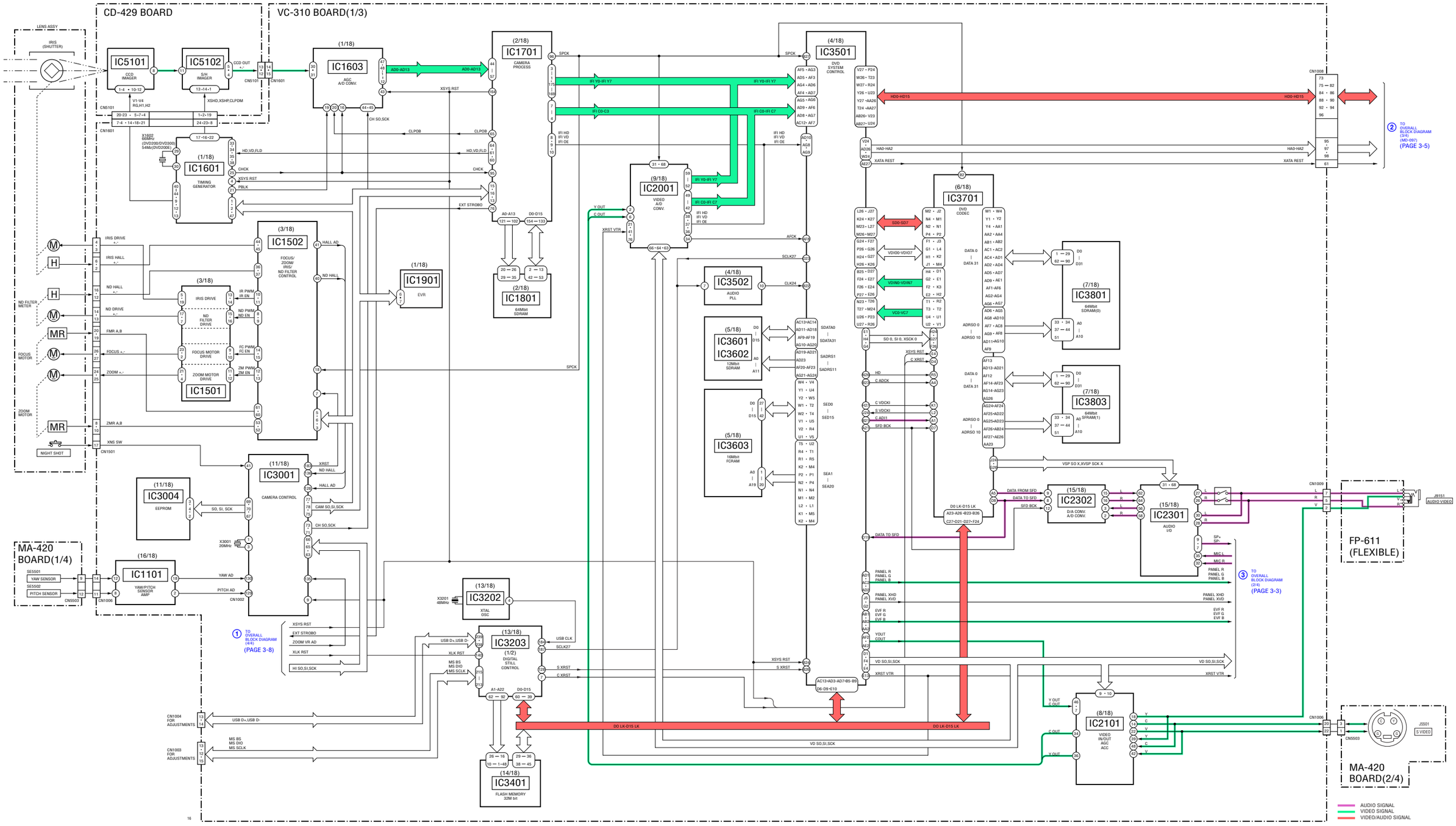
- OVERALL BLOCK DIAGRAM (1/4)
- OVERALL BLOCK DIAGRAM (2/4)
- OVERALL BLOCK DIAGRAM (3/4)
- OVERALL BLOCK DIAGRAM (4/4)
- POWER BLOCK DIAGRAM (1/3)
- POWER BLOCK DIAGRAM (2/3)
- POWER BLOCK DIAGRAM (3/3)

COVER

SECTION 3
BLOCK DIAGRAMS

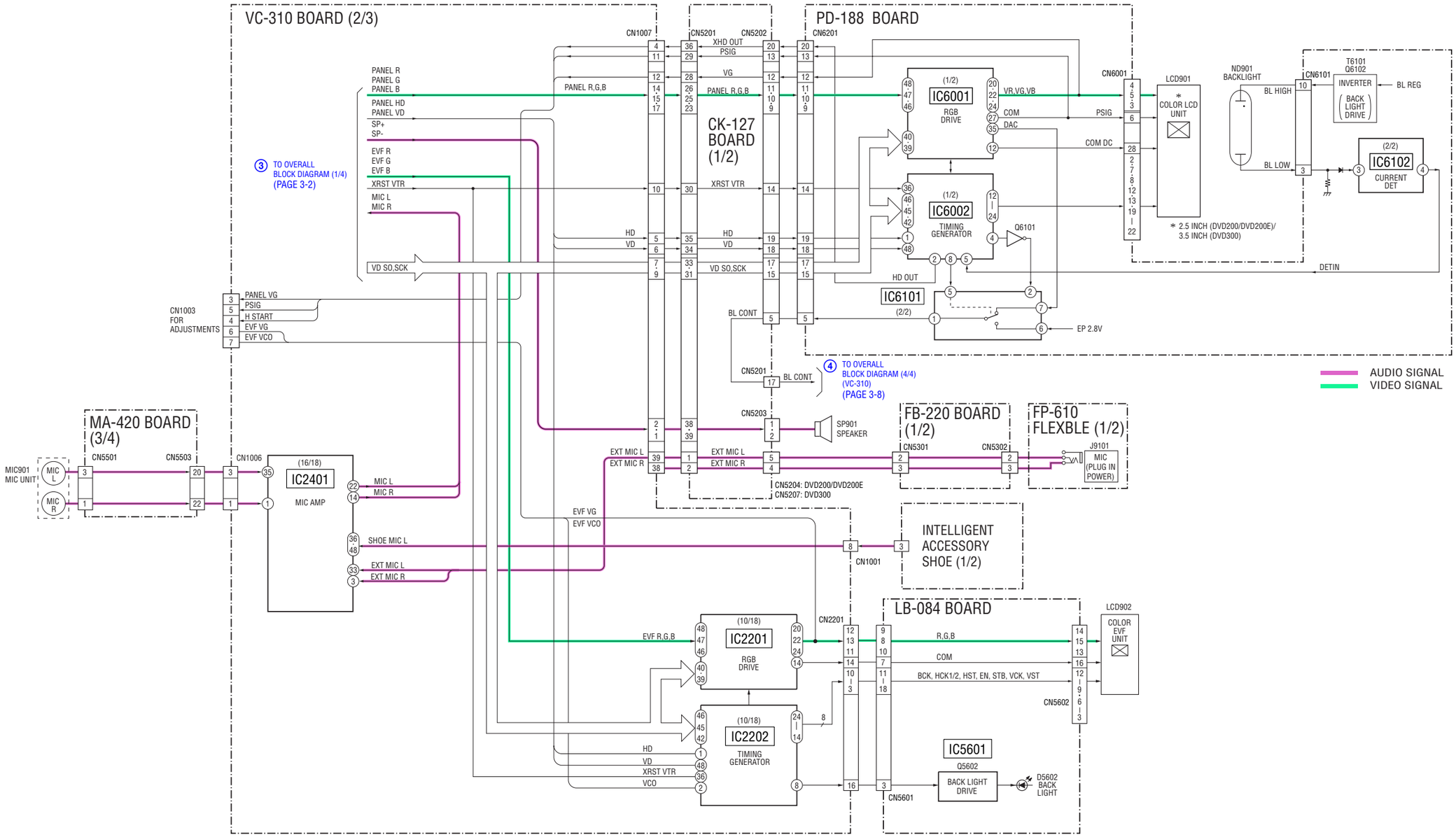
3-1. OVERALL BLOCK DIAGRAM (1/4)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



3-2. OVERALL BLOCK DIAGRAM (2/4)

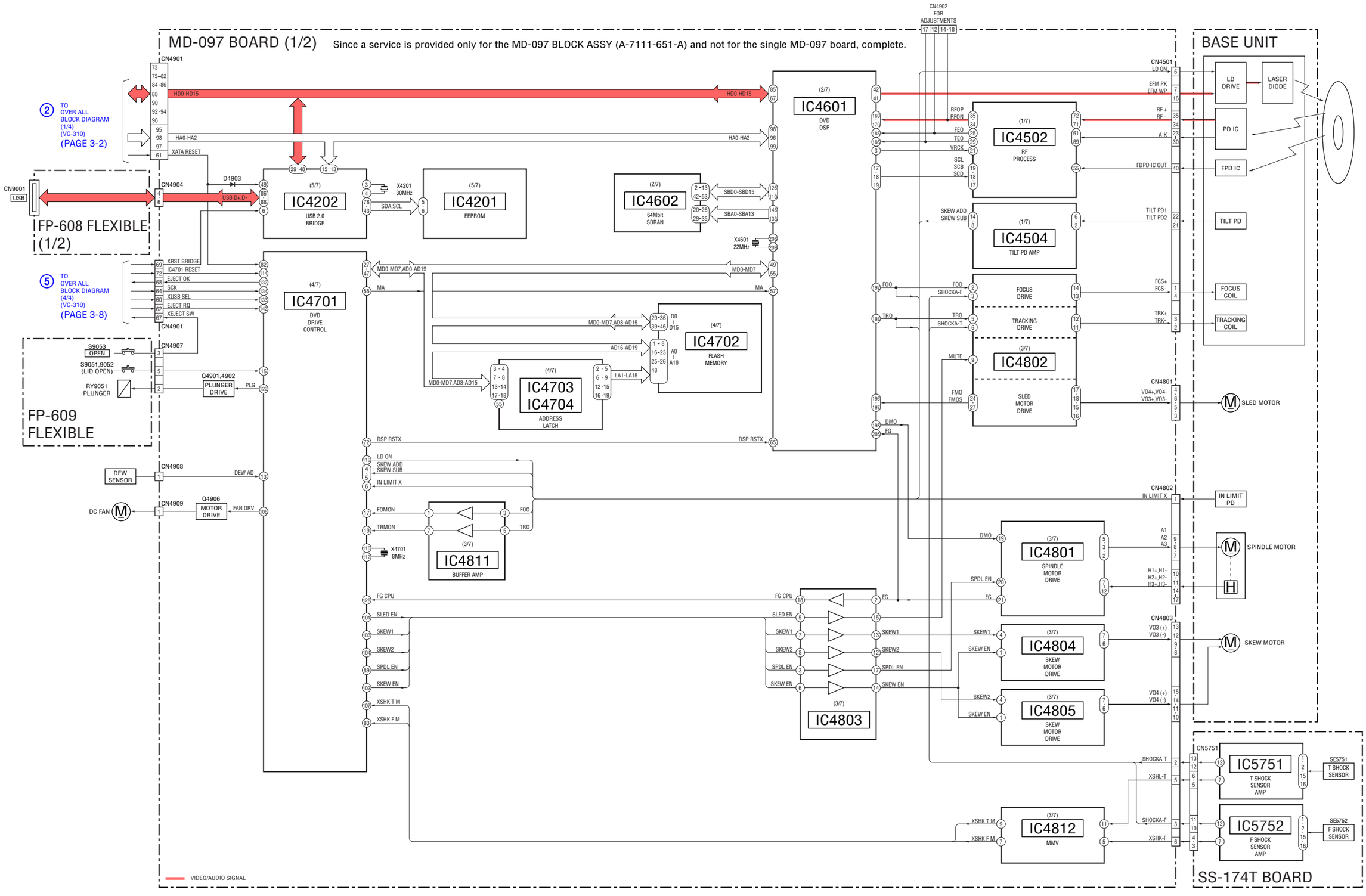
( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



COVER

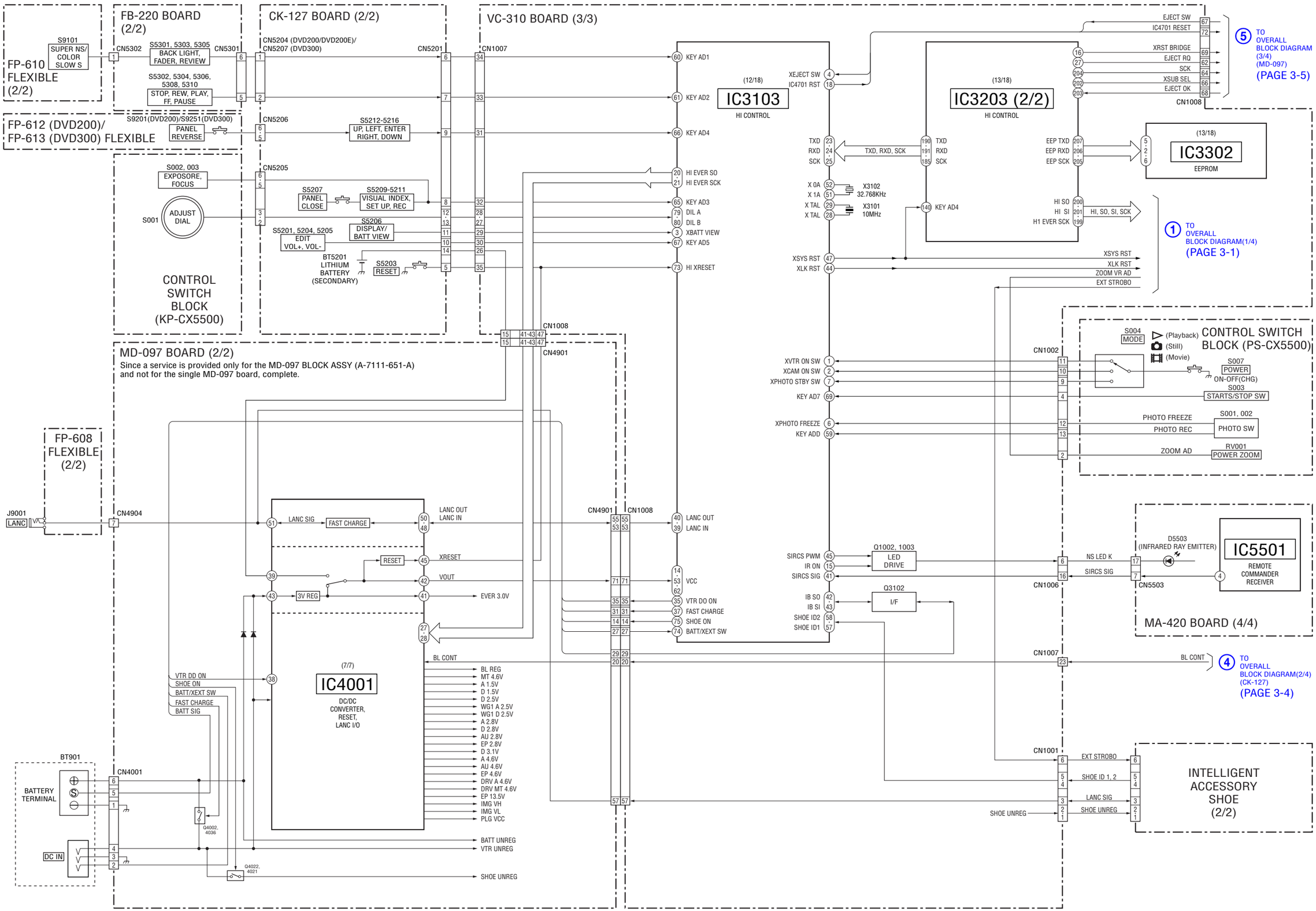
3-3. OVERALL BLOCK DIAGRAM (3/4)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



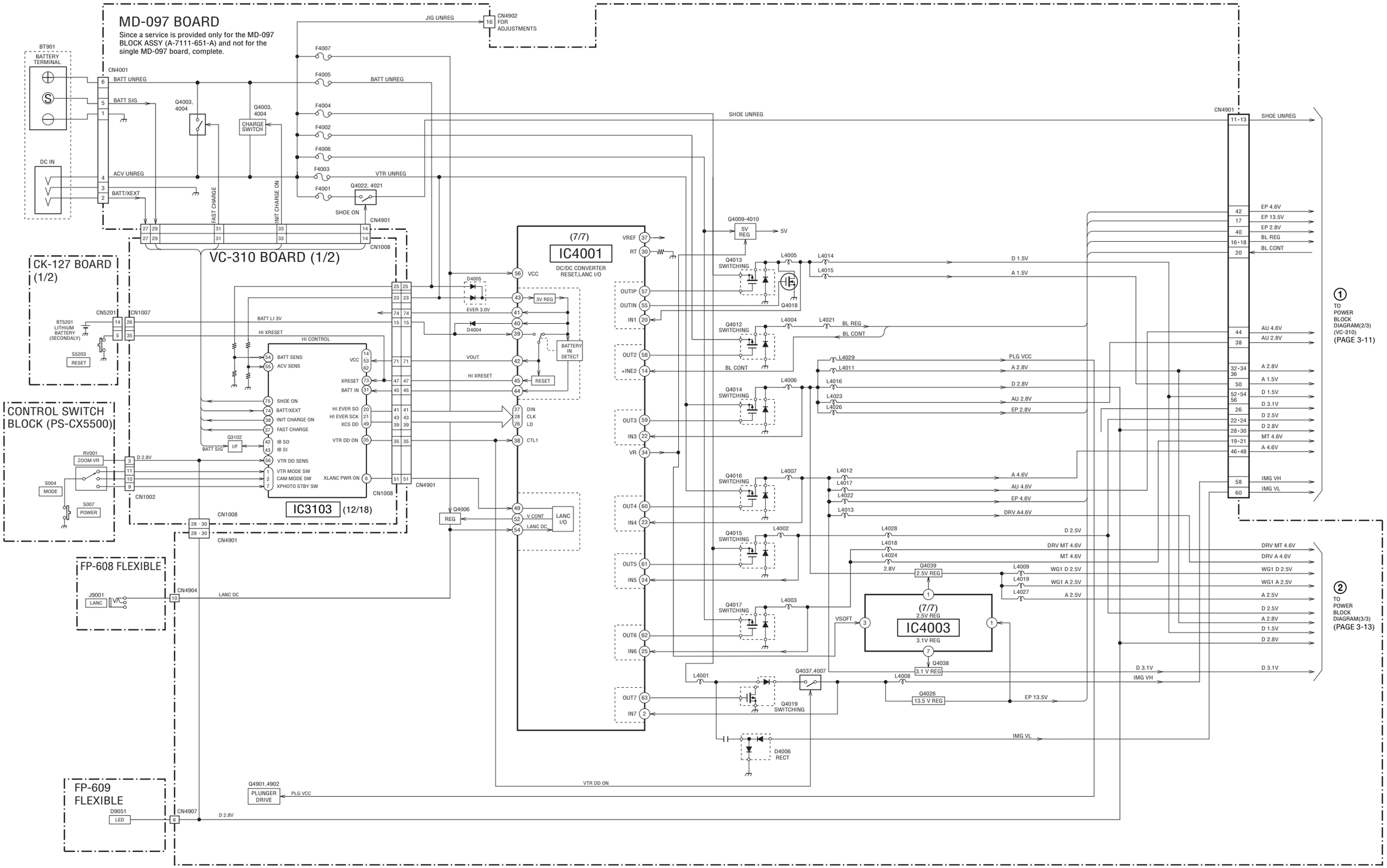
3-4. OVERALL BLOCK DIAGRAM (4/4)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



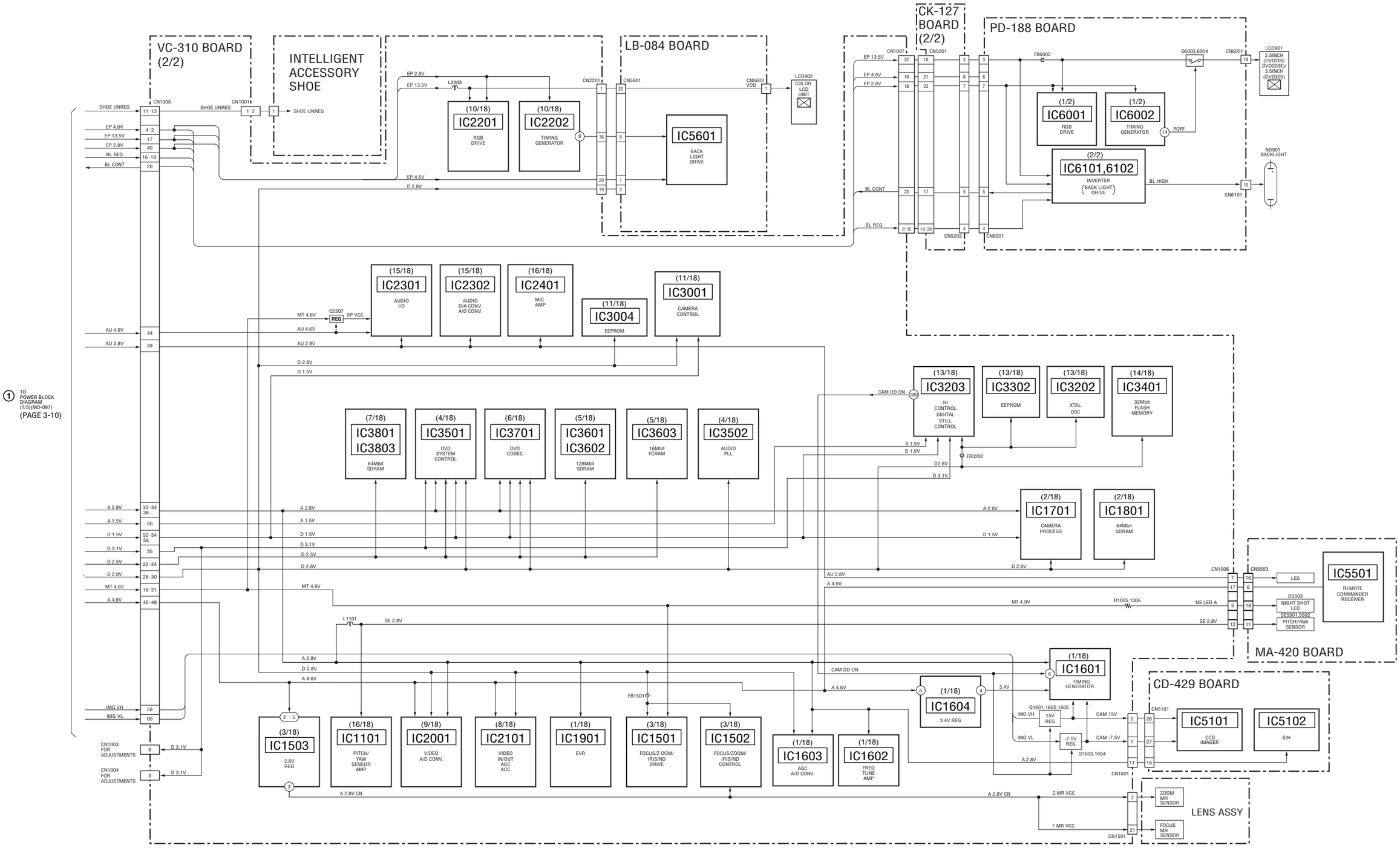
3-5. POWER BLOCK DIAGRAM (1/3)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



3-6. POWER BLOCK DIAGRAM (2/3)

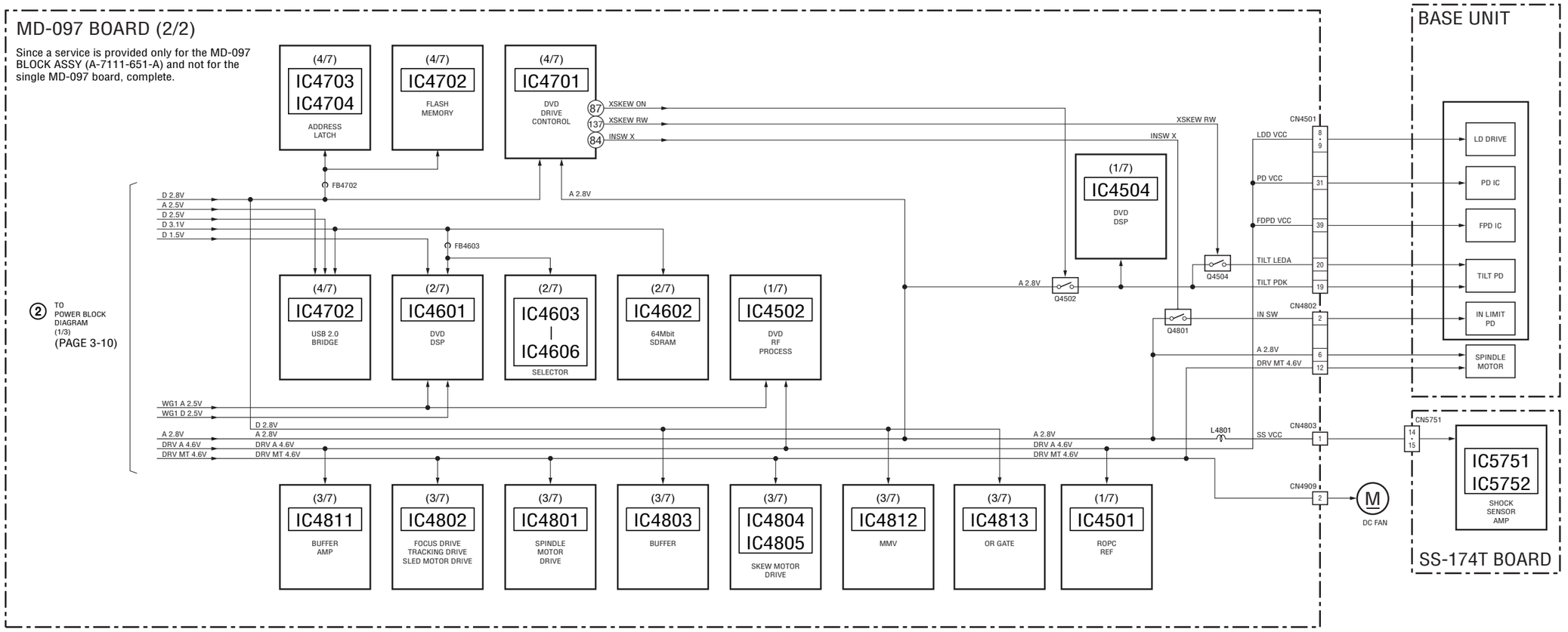
( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



COVER

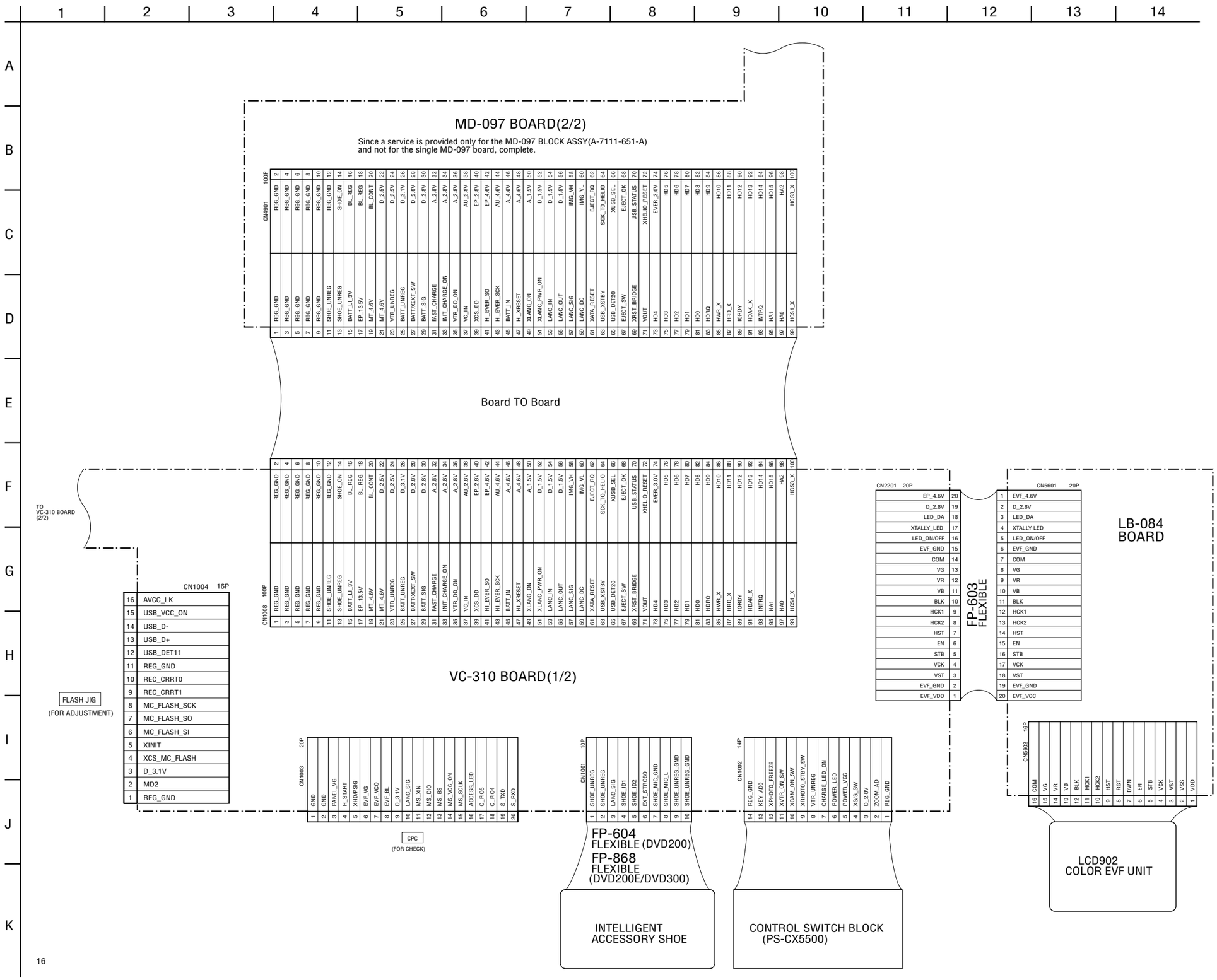
3-7. POWER BLOCK DIAGRAM (3/3)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



SECTION 4
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. FRAME SCHEMATIC DIAGRAM (1/3)



1	REG_GND	2	REG_GND	3	REG_GND	4	REG_GND	5	REG_GND	6	REG_GND	7	REG_GND	8	REG_GND	9	REG_GND	10	REG_GND
11	SHOE_UNREG	12	REG_GND	13	SHOE_UNREG	14	SHOE_ON	15	BATT_LI_3V	16	BL_REG	17	EP_13.5V	18	BL_REG	19	MT_4.6V	20	BL_CONT
21	MT_4.6V	22	D_2.5V	23	VTR_UNREG	24	D_2.5V	25	BATT_UNREG	26	D_3.1V	27	BATT/EXT_SW	28	D_2.8V	29	BATT_SIG	30	D_2.8V
31	FAST_CHARGE	32	A_2.8V	33	INIT_CHARGE_ON	34	A_2.8V	35	VTR_DD_ON	36	A_2.8V	37	VC_IN	38	AU_2.8V	39	XCS_DD	40	EP_2.8V
41	HI_EVER_SO	42	EP_4.6V	43	HI_EVER_SCK	44	AU_4.6V	45	BATT_IN	46	A_4.6V	47	HI_XRESET	48	A_4.6V	49	XLANC_ON	50	A_1.5V
51	XLANC_PWR_ON	52	D_1.5V	53	LANC_IN	54	D_1.5V	55	LANC_OUT	56	D_1.5V	57	LANC_SIG	58	IMG_VH	59	LANC_DC	60	IMG_VL
61	XATA_RESET	62	EJECT_RQ	63	USB_XSTBY	64	SCK_TO_HELIO	65	USB_DET20	66	XUSB_SEL	67	EJECT_SW	68	EJECT_OK	69	XRST_BRIDGE	70	USB_STATUS
71	VOUT	72	XHELIO_RESET	73	HD4	74	EVER_3.0V	75	HD3	76	HD5	77	HD2	78	HD6	79	HD1	80	HD7
81	HD0	82	HD8	83	HDRQ	84	HD9	85	HWR_X	86	HD10	87	HRD_X	88	HD11	89	IORDY	90	HD12
91	HDAK_X	92	HD13	93	INTRQ	94	HD14	95	HA1	96	HD15	97	HA0	98	HA2	99	HCS1_X	100	HCS3_X

16	AVCC_LK	15	USB_VCC_ON	14	USB_D-	13	USB_D+	12	USB_DET11
11	REG_GND	10	REC_CRRT0	9	REC_CRRT1	8	MC_FLASH_SCK	7	MC_FLASH_SO
6	MC_FLASH_SI	5	XINIT	4	XCS_MC_FLASH	3	D_3.1V	2	MD2
1	REG_GND								

1	GND	2	GND	3	PANEL_VG	4	H_START	5	XHIDPSIG
6	EVF_VG	7	EVF_VCO	8	EVF_BL	9	D_3.1V	10	LANC_SIG
11	MS_XIN	12	MS_DIO	13	MS_BS	14	MS_VCC_ON	15	MS_SCLK
16	ACCESS_LED	17	C_PI05	18	C_PI04	19	S_TXD	20	S_RXD

1	SHOE_UNREG	2	SHOE_UNREG	3	LANC_SIG	4	SHOE_ID1	5	SHOE_ID2
6	EXT_STROBO	7	SHOE_MIC_GND	8	SHOE_MIC_L	9	SHOE_UNREG_GND	10	SHOE_UNREG_GND

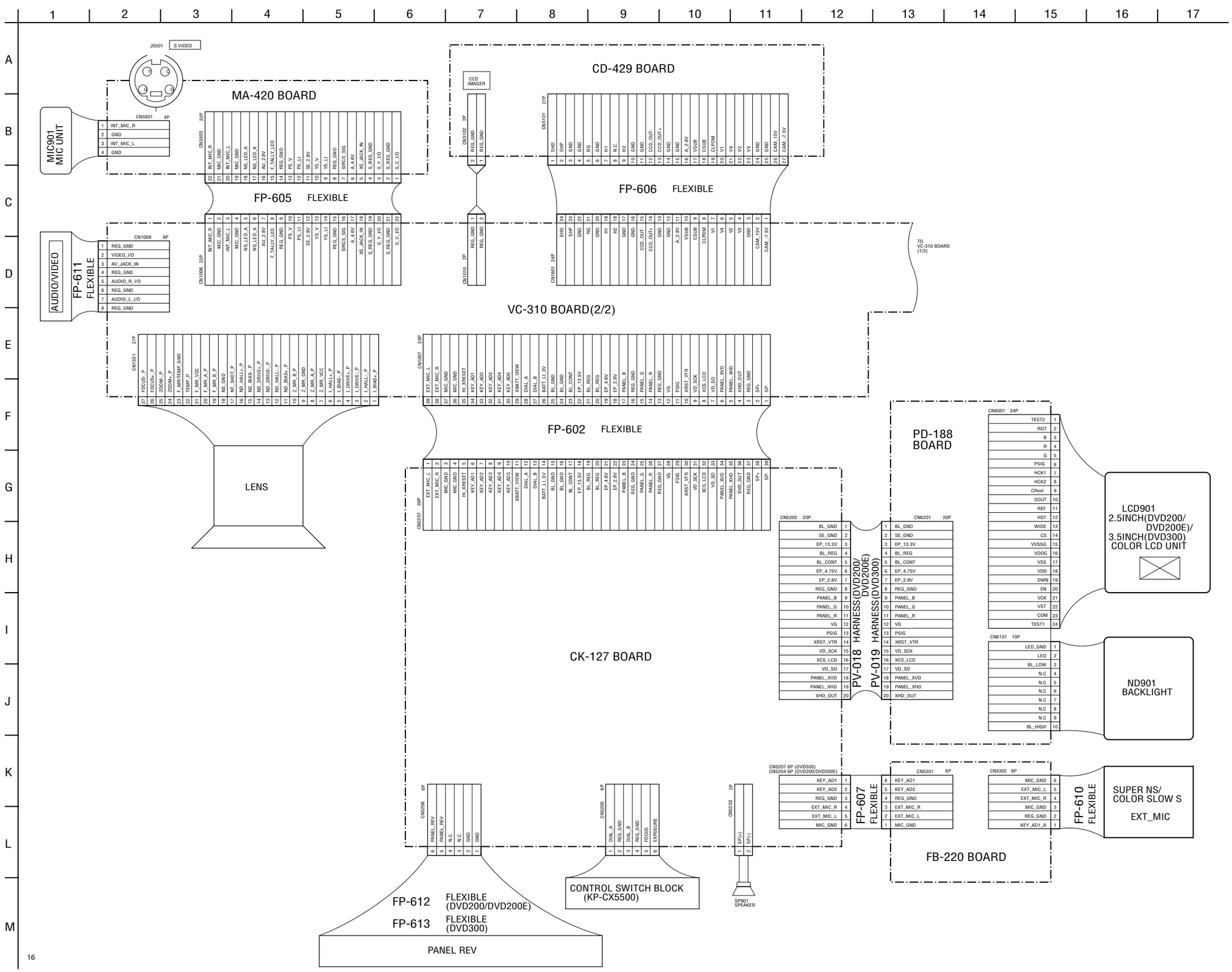
14	REG_ADD	13	KEY_ADD	12	XPHOTO_FREEZE	11	XVTR_ON_SW	10	XCAM_ON_SW
9	XPHOTO_STBY_SW	8	VTR_UNREG	7	CHARGE_LED_ON	6	POWER_LED	5	POWER_VCC
4	XS/S_SW	3	D_2.8V	2	ZOOM_AD	1	REG_GND		

EP_4.6V	20	D_2.8V	19	LED_DA	18	XTALLY_LED	17	LED_ON/OFF	16
EVF_GND	15	COM	14	VG	13	VR	12	VB	11
BLK	10	HCK1	9	HCK2	8	HST	7	EN	6
STB	5	VCK	4	VST	3	EVF_GND	2	EVF_VDD	1

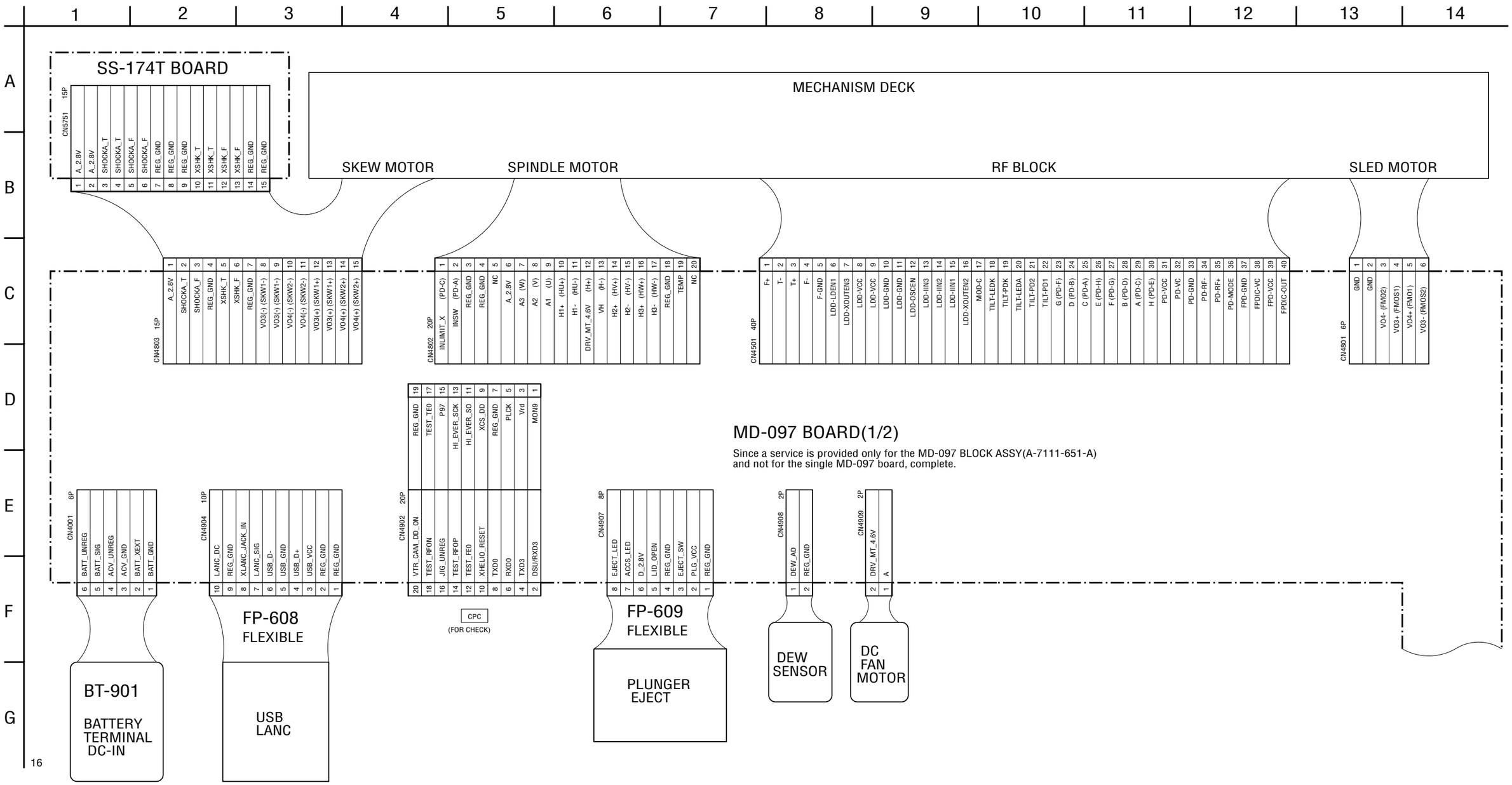
1	EVF_4.6V	2	D_2.8V	3	LED_DA	4	XTALLY LED	5	LED_ON/OFF
6	EVF_GND	7	COM	8	VG	9	VR	10	VB
11	BLK	12	HCK1	13	HCK2	14	HST	15	EN
16	STB	17	VCK	18	VST	19	EVF_GND	20	EVF_VCC

16	COM	15	VG	14	VR	13	VB	12	BLK
11	HCK1	10	HCK2	9	HST	8	RGT	7	DWN
6	EN	5	STB	4	VCK	3	VST	2	VSS
1	VDD								

FRAME SCHEMATIC DIAGRAM (2/3)



FRAME SCHEMATIC DIAGRAM (3/3)



COVER

4-2. SCHEMATIC DIAGRAMS

Link

- CD-429 BOARD (CCD IMAGER)
- CK-127 BOARD (CONNECTOR, FUNCTION SWITCH)
- FP-609 FLEXIBLE
- FB-220 BOARD (FUNCTION SWITCH)
- PD-188 BOARD (1/2) (LCD DRIVE)
- FP-610 FLEXIBLE (EXT MIC)
- PD-188 BOARD (2/2) (BACKLIGHT DRIVE)
- CONTROL SWITCH BLOCK (KP-CX5500)
- LB-084 BOARD (EVF CONNECTOR, EVF BACK LIGHT)
- CONTROL SWITCH BLOCK (PS-CX5500)
- FP-608 FLEXIBLE (USB, LANC)
- FP-611 FLEXIBLE (AUDIO/VIDEO JACK)
- MA-420 BOARD (PITCH/YAW SENSOR, REMOTE SEONSOR, MIC)

- COMMON NOTE FOR SCHEMATIC DIAGRAMS
- WAVEFORMS

COVER

4-2. SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR SCHEMATIC DIAGRAMS
(In addition to this, the necessary note is printed in each block)

(For schematic diagrams)

- All capacitors are in μF unless otherwise noted. pF : μμF. 50 V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10 W unless otherwise noted. kΩ=1000 Ω, MΩ=1000 kΩ.
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.

Example

C541	L452
22U	10UH
TA A	2520

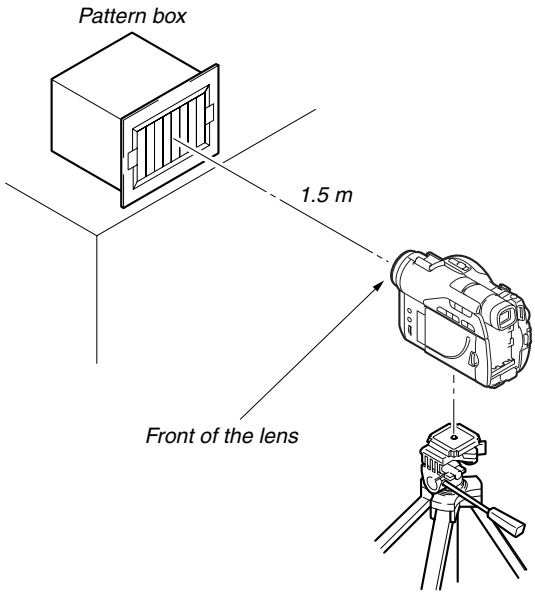
Kinds of capacitor
Temperature characteristics
External dimensions (mm)

- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used.
  In such cases, the unused circuits may be indicated.
- Parts with * differ according to the model/destination.
  Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name
  XEDIT → $\overline{\text{EDIT}}$ PB/XREC → PB/$\overline{\text{REC}}$
- : non flammable resistor
- : fusible resistor
- : panel designation
- : B+ Line
- : B– Line
- : IN/OUT direction of (+,–) B LINE.
- : adjustment for repair.
- : VIDEO SIGNAL (ANALOG)
- : AUDIO SIGNAL (ANALOG)
- : VIDEO/AUDIO SIGNAL
- : VIDEO/AUDIO/SERVO SIGNAL
- : SERVO SIGNAL
- Circled numbers refer to waveforms.

(Measuring conditions voltage and waveform)

- Voltages and waveforms are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values and reference waveforms.
  (VOM of DC 10 MΩ input impedance is used)
- Voltage values change depending upon input impedance of VOM used.)

1. Connection



2. Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

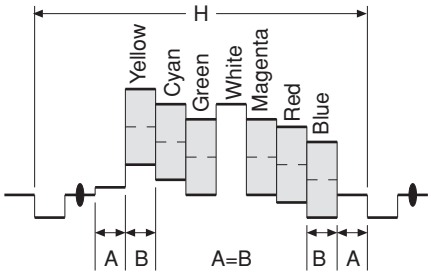


Fig. a (Video output terminal output waveform)

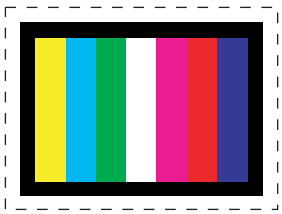


Fig.b (Picture on monitor TV)

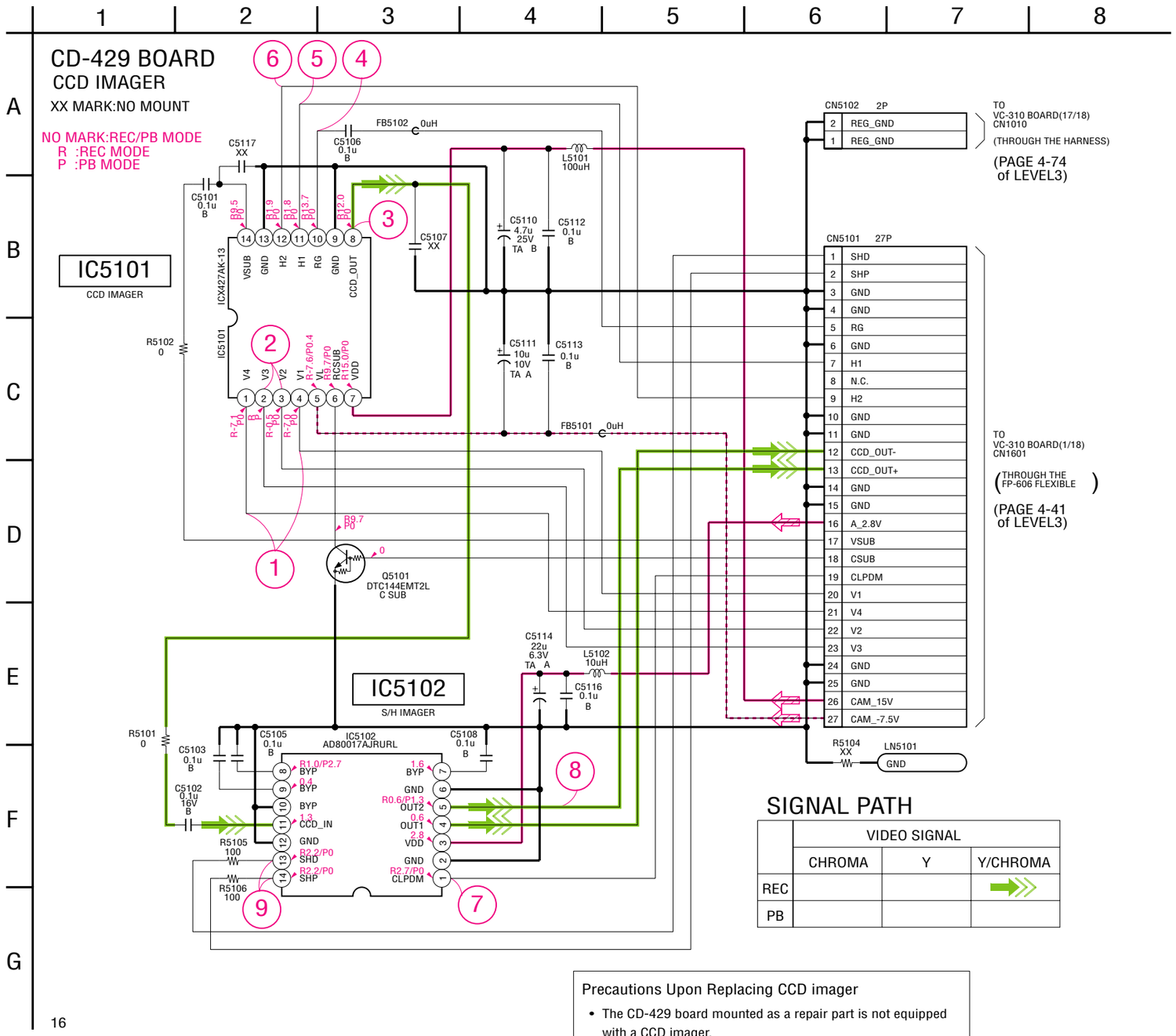
When indicating parts by reference number, please include the board name.

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

4-2. SCHEMATIC DIAGRAMS

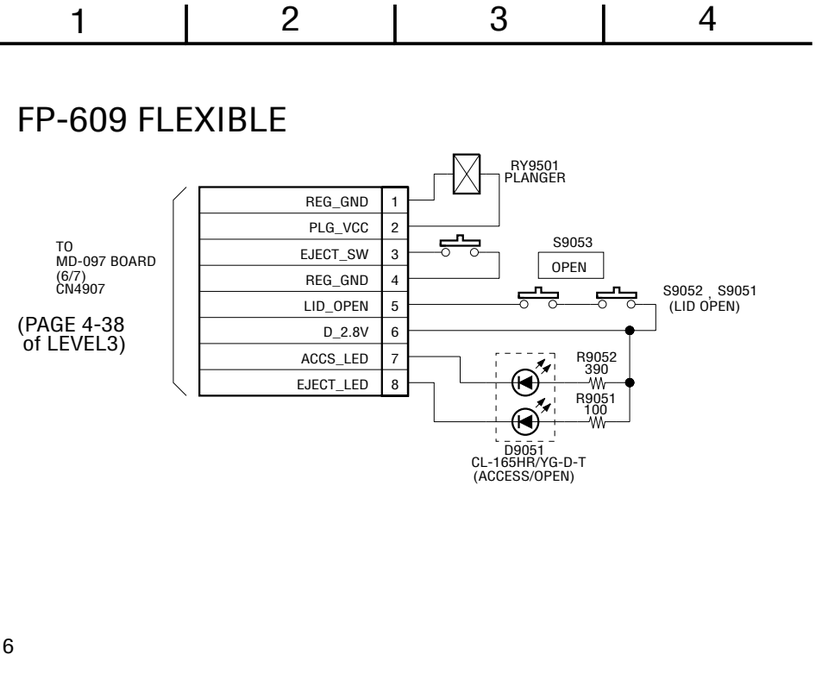
For Schematic Diagram

- Refer to page 4-83 for printed wiring board of CD-429 board.
- Refer to page 4-93 for printed wiring board of FP-609 board.
- Refer to page 4-107 for waveforms of CD-429 board.



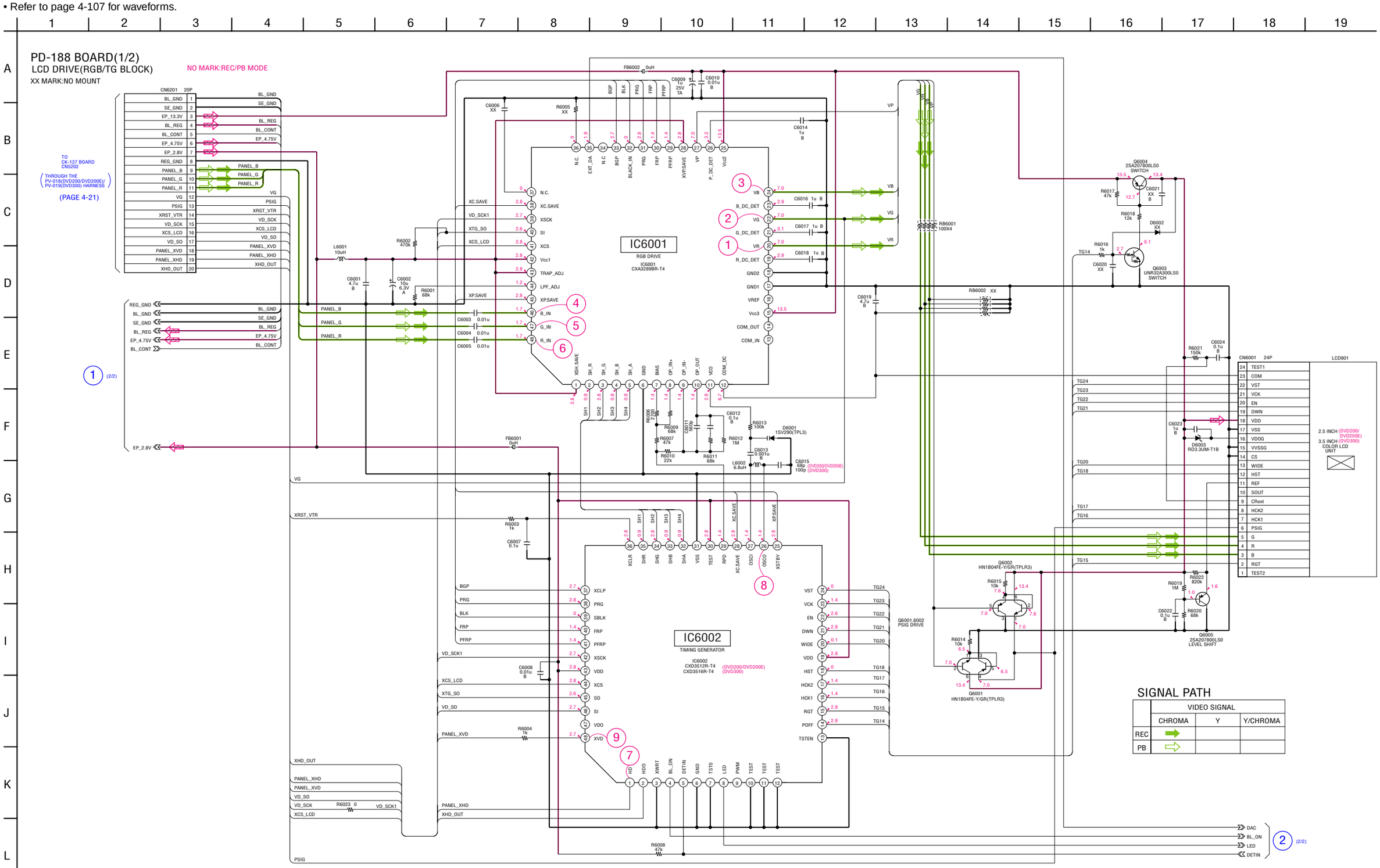
Precautions Upon Replacing CCD imager

- The CD-429 board mounted as a repair part is not equipped with a CCD imager.
  When replacing this board, remove the CCD imager from the old one and mount it onto the new one.
- If the CCD imager has been replaced, carry out all the adjustments for the camera section.
- As the CCD imager may be damaged by static electricity from its structure, handle it carefully like for the MOS IC.
  In addition, ensure that the receiver is not covered with dusts nor exposed to strong light.



For Schematic Diagram

• Refer to page 4-85 for printed wiring board.
• Refer to page 4-107 for waveforms.



COVER

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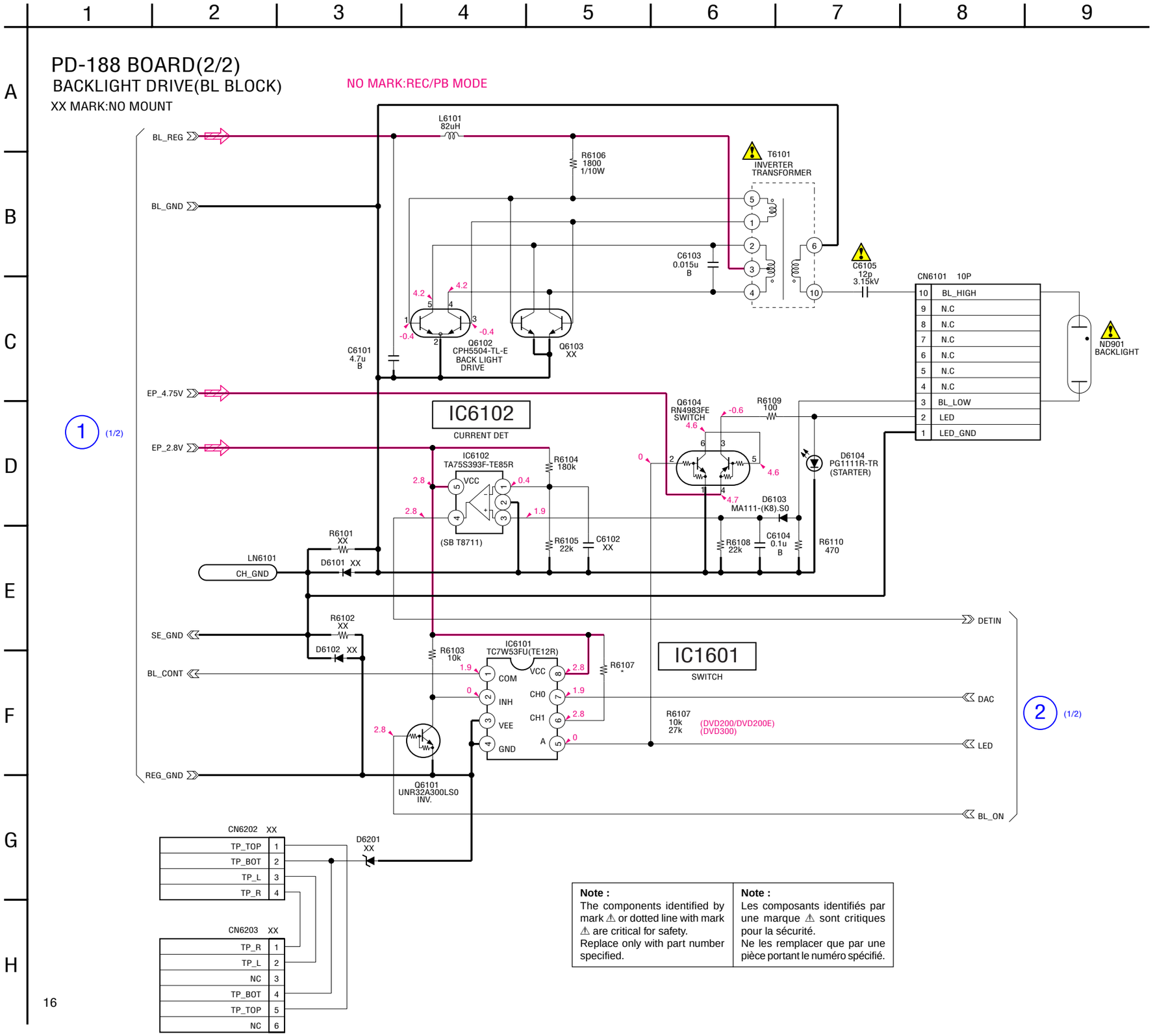
For Schematic Diagram

• Refer to page 4-85 for printed wiring board.
• Refer to page 4-107 for waveforms.



Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note :
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

For Schematic Diagram

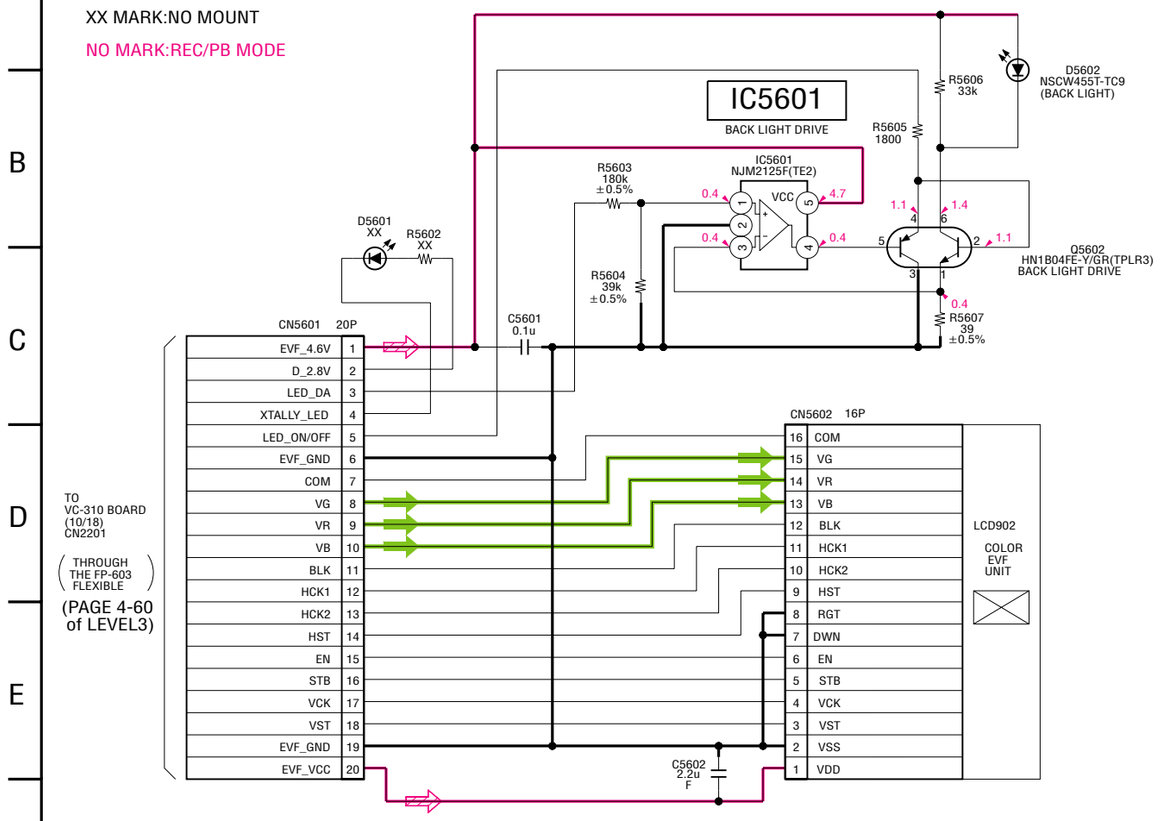
• Refer to page 4-87 for printed wiring board of LB-084 board.
• Refer to page 4-93 for printed wiring board of FP-608 flexible board.

LB-084 BOARD

EVF CONNECTOR,EVF BACK LIGHT

XX MARK:NO MOUNT

NO MARK:REC/PB MODE



SIGNAL PATH

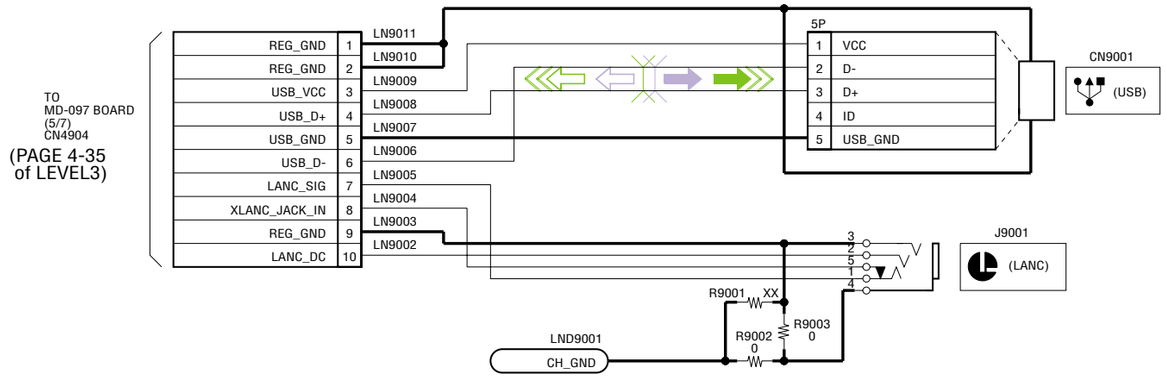
	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC	➡		
PB			

16

FP-608 FLEXIBLE

USB,LANC

XX MARK:NO MOUNT



SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC			➡	➡
PB			⇨	⇨

16

For Schematic Diagram

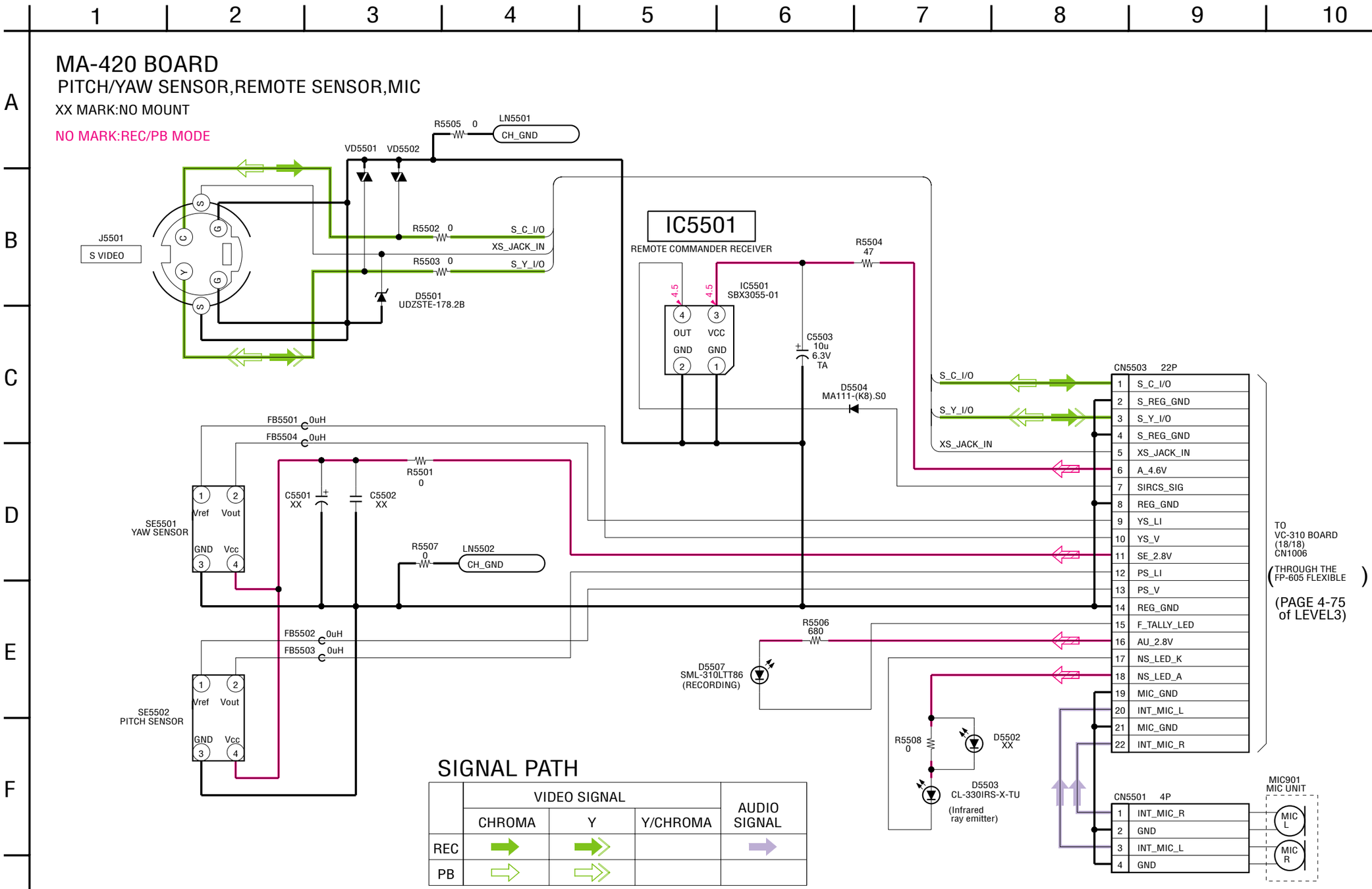
• Refer to page 4-89 for printed wiring board.

MA-420 BOARD

PITCH/YAW SENSOR,REMOTE SENSOR,MIC

XX MARK:NO MOUNT

NO MARK:REC/PB MODE

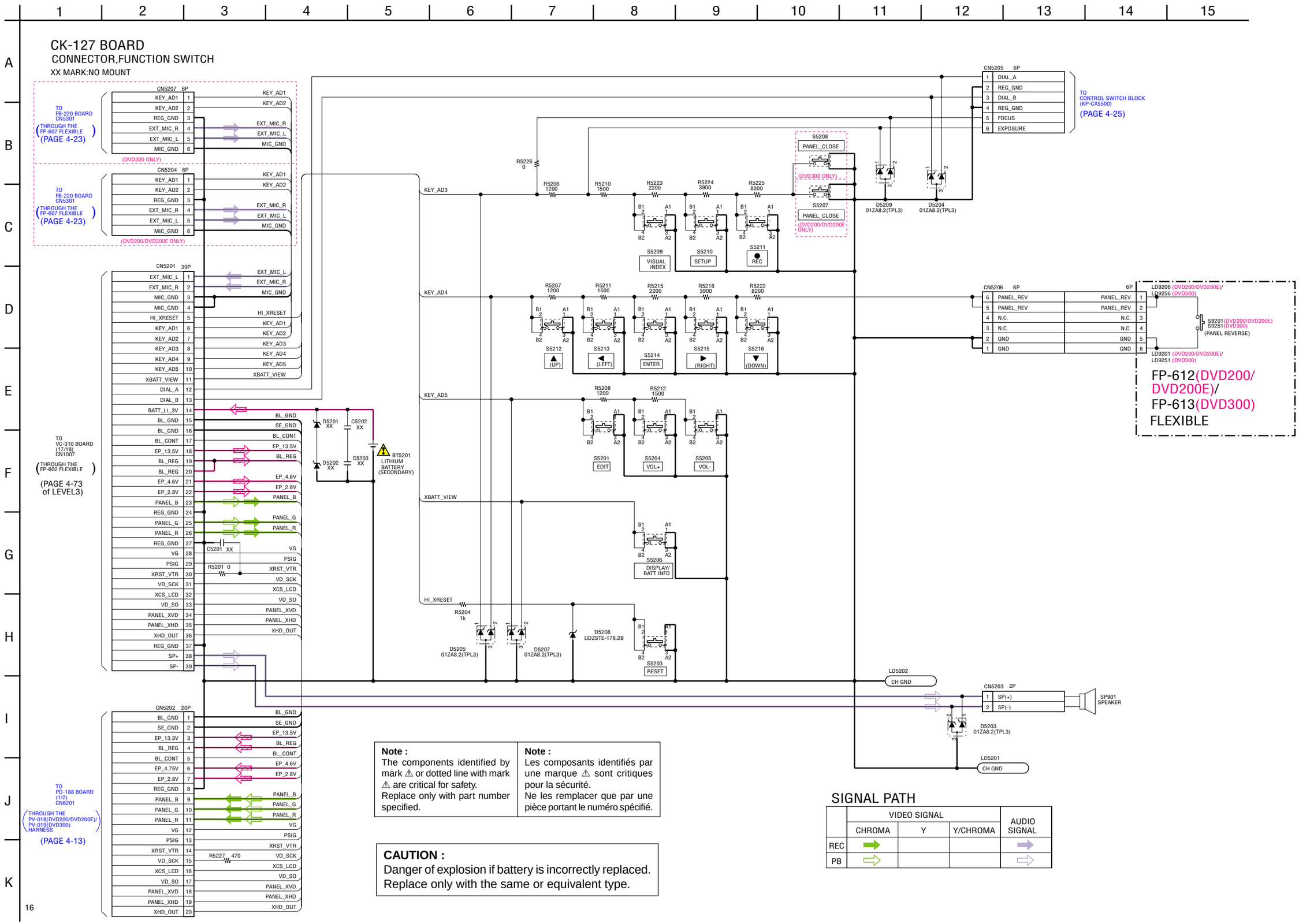


SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	➡	➡		➡
PB	⇨	⇨		

For Schematic Diagram

• Refer to page 4-91 for printed wiring board.



Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note :
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

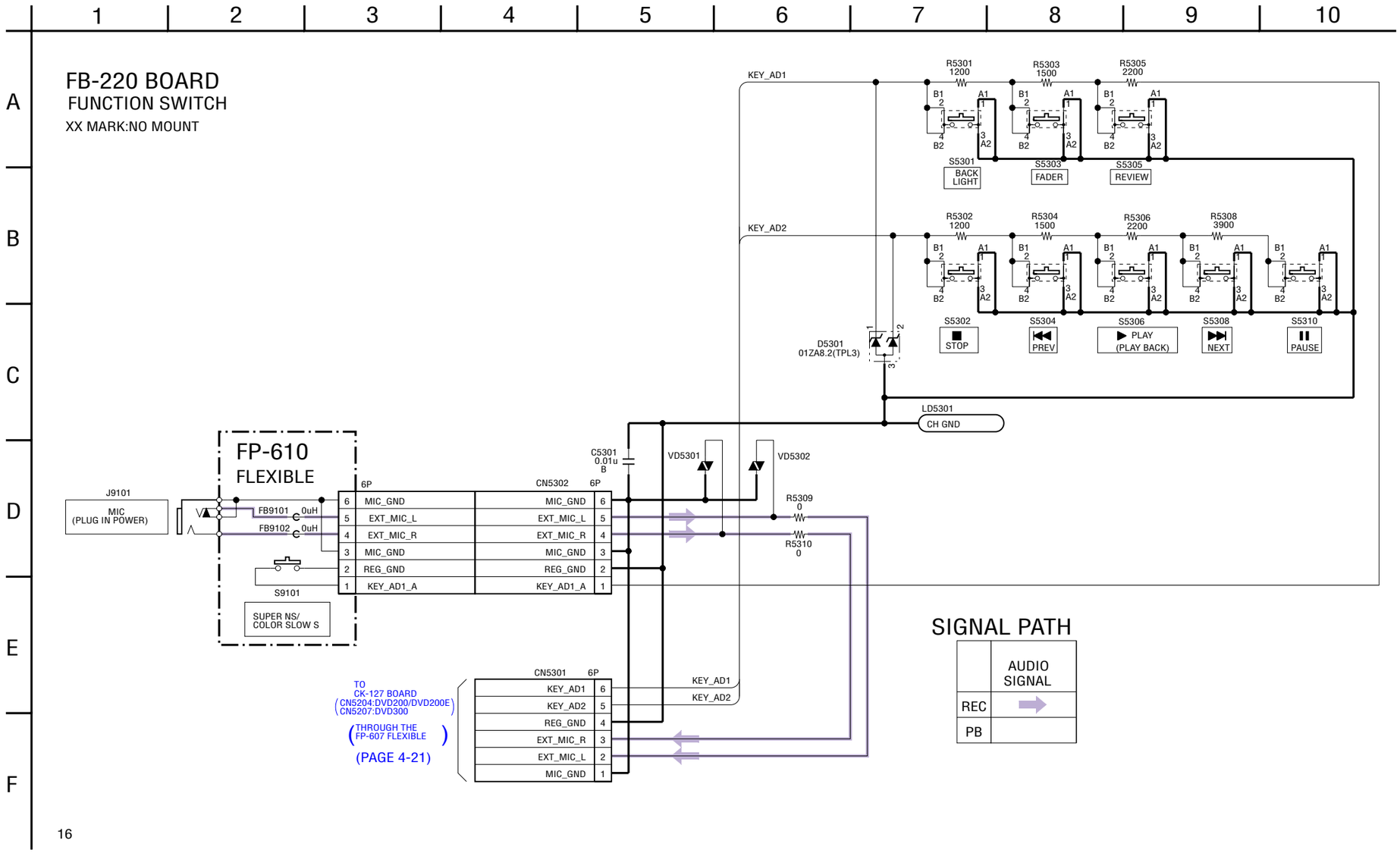
CAUTION :
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

SIGNAL PATH

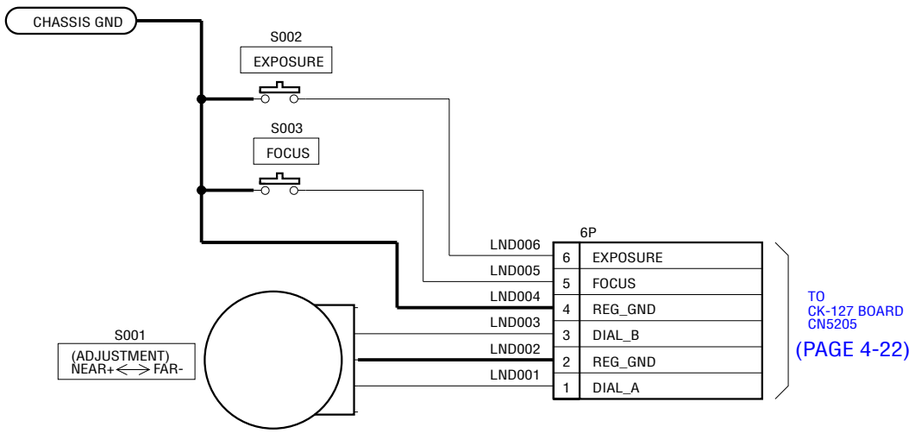
	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	➡			➡
PB	⇨			⇨

For Schematic Diagram

• Refer to page 4-87 for printed wiring board of FB-220 board.
• Refer to page 4-93 for printed wiring board of FP-610 flexible board.

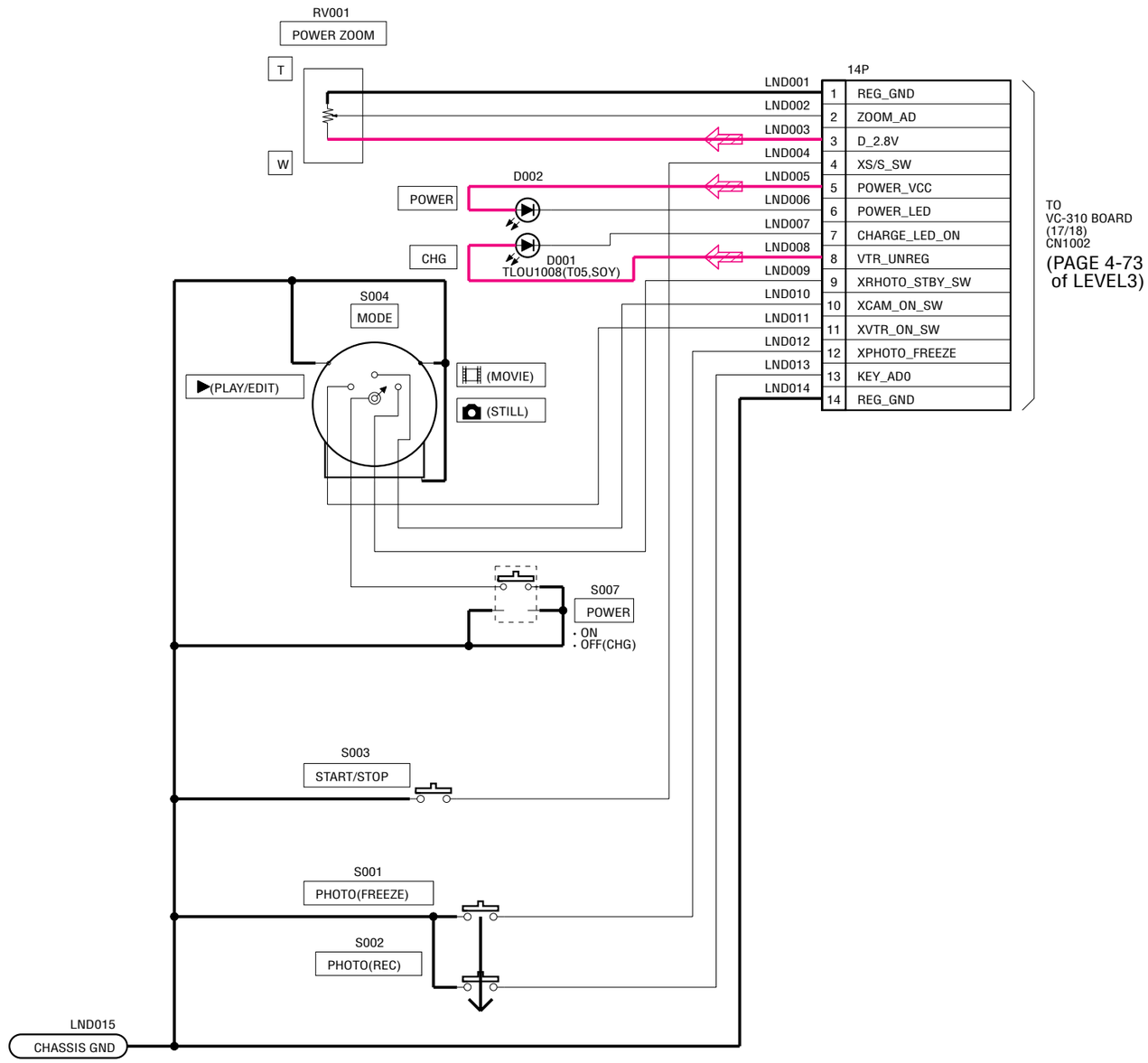


CONTROL SWITCH BLOCK(KP-CX5500)
FUNCTION SWITCH



CONTROL SWITCH BLOCK (KP-CX5500)
is replaced as a block.
So that this PRINTED WIRING is omitted.

CONTROL SWITCH BLOCK(PS-CX5500)
FUNCTION SWITCH

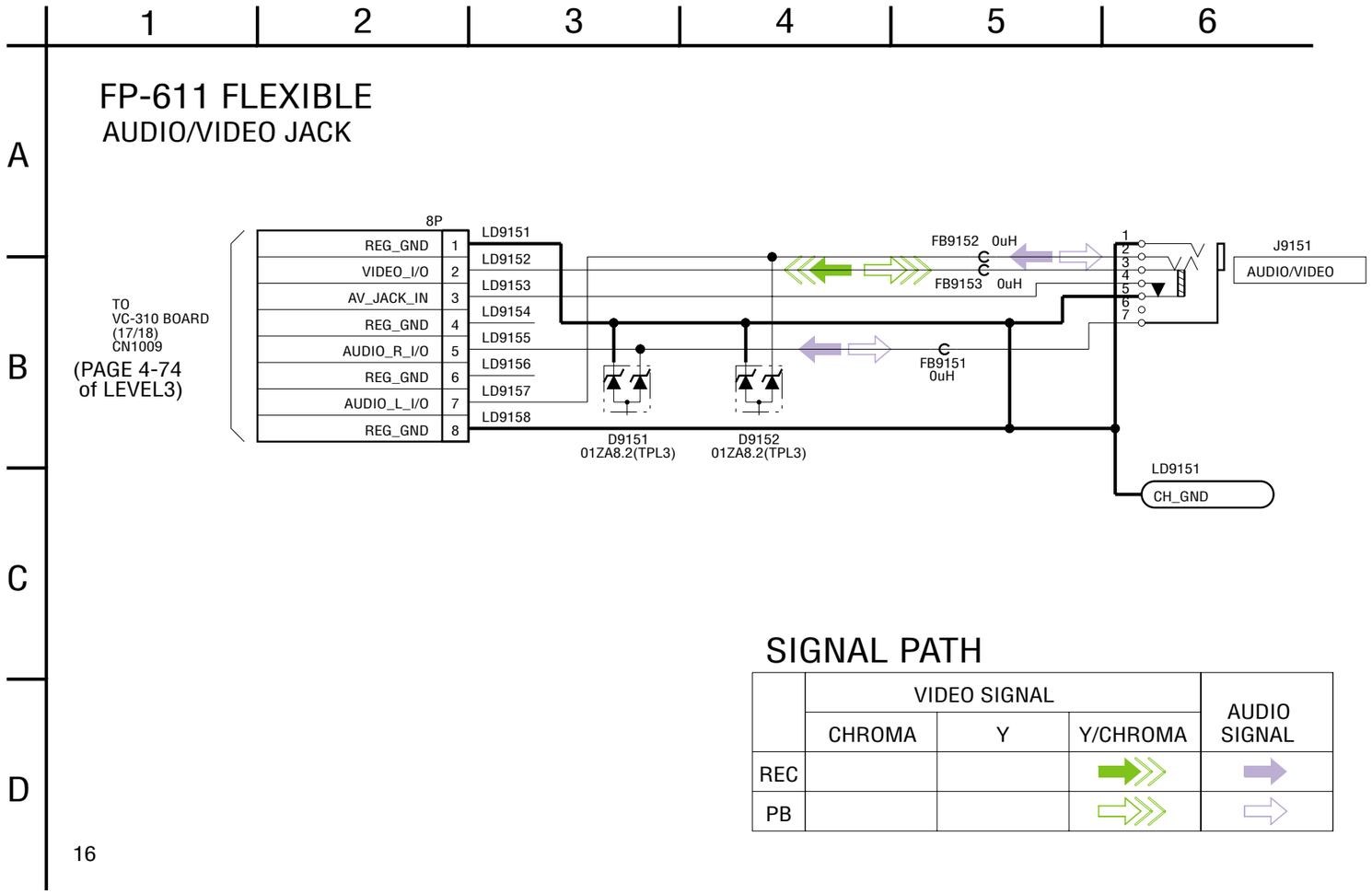


CONTROL SWITCH BLOCK (PS-CX5500)
is replaced as a block.
So that this PRINTED WIRING is omitted.

Schematic diagram of the MD-097, SS-174T and VC-310 board are not shown.
Pages from 4-27 to 4-78 are not shown.

For Schematic Diagram

• Refer to page 4-94 for printed wiring board of FP-611 flexible board.



SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC			⇒	→
PB			⇨	⇨

COVER

4-3. PRINTED WIRING BOARDS

Link

- CD-429 BOARD
- MA-420 BOARD
- PD-188 BOARD
- CK-127 BOARD
- LB-084 BOARD
- FP-608/609/610/611 FLEXIBLE BOARD
- FB-220 BOARD
- FP-612/613 FLEXIBLE BOARD

- COMMON NOTE FOR PRINTED WIRING BOARDS
- WAVEFORMS
- MOUNTED PARTS LOCATION
- CIRCUIT BOARDS LOCATION
- FLEXIBLE BOARDS LOCATION

COVER

4-3. PRINTED WIRING BOARDS

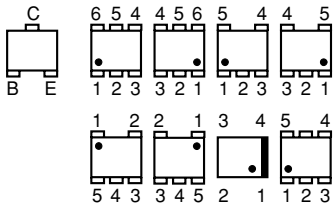
THIS NOTE IS COMMON FOR WIRING BOARDS
(In addition to this, the necessary note is printed in each block)

(For printed wiring boards)

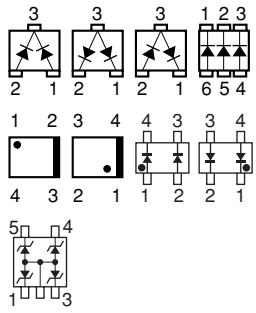
- : Uses unleaded solder.
- : Pattern from the side which enables seeing. (The other layers' patterns are not indicated)
- Through hole is omitted.
- Circled numbers refer to waveforms.
- There are a few cases that the part printed on diagram isn't mounted in this model.
- : panel designation

- Chip parts.

Transistor



Diode



BOARD INFORMATION

board name	parts location (shown on page)	waveform (shown on page)	pattern		CSP IC
			number of layers	layers not shown	
CD-429	4-111	4-107	2	–	–
PD-188	4-111	4-107	2	–	–
LB-084	4-111	–	2	–	–
FB-220	4-111	–	2	–	–
MA-420	4-112	–	2	–	–
CK-127	4-112	–	2	–	–
SS-174T	4-116	–	8	2 to 7	–
MD-097	4-113	–	8	2 to 7	IC4602
VC-310	4-114	4-109	8	2 to 7	IC1701, 1801, 2001, 3001, 3103, 3203, 3401, 3403, 3501, 3601, 3602, 3603, 3701, 3801, 3803

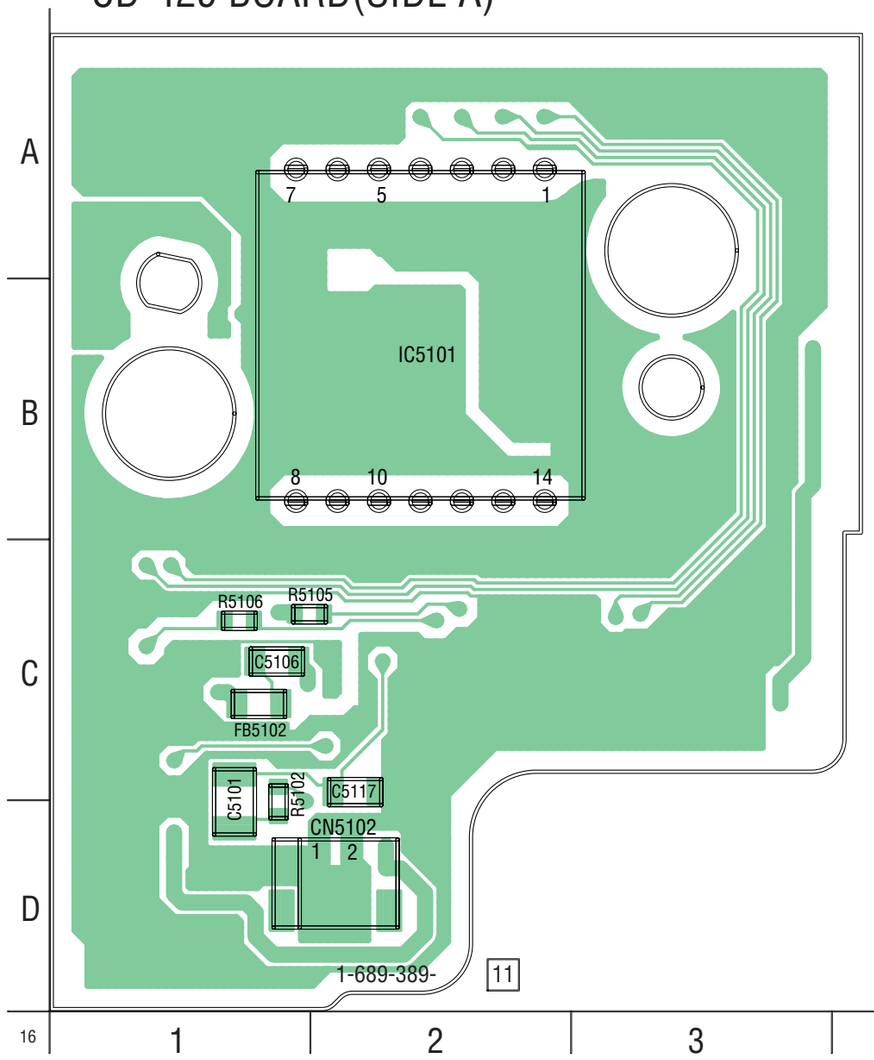
4-3. PRINTED WIRING BOARDS

CD-429 (CCD IMAGER) PRINTED WIRING BOARD

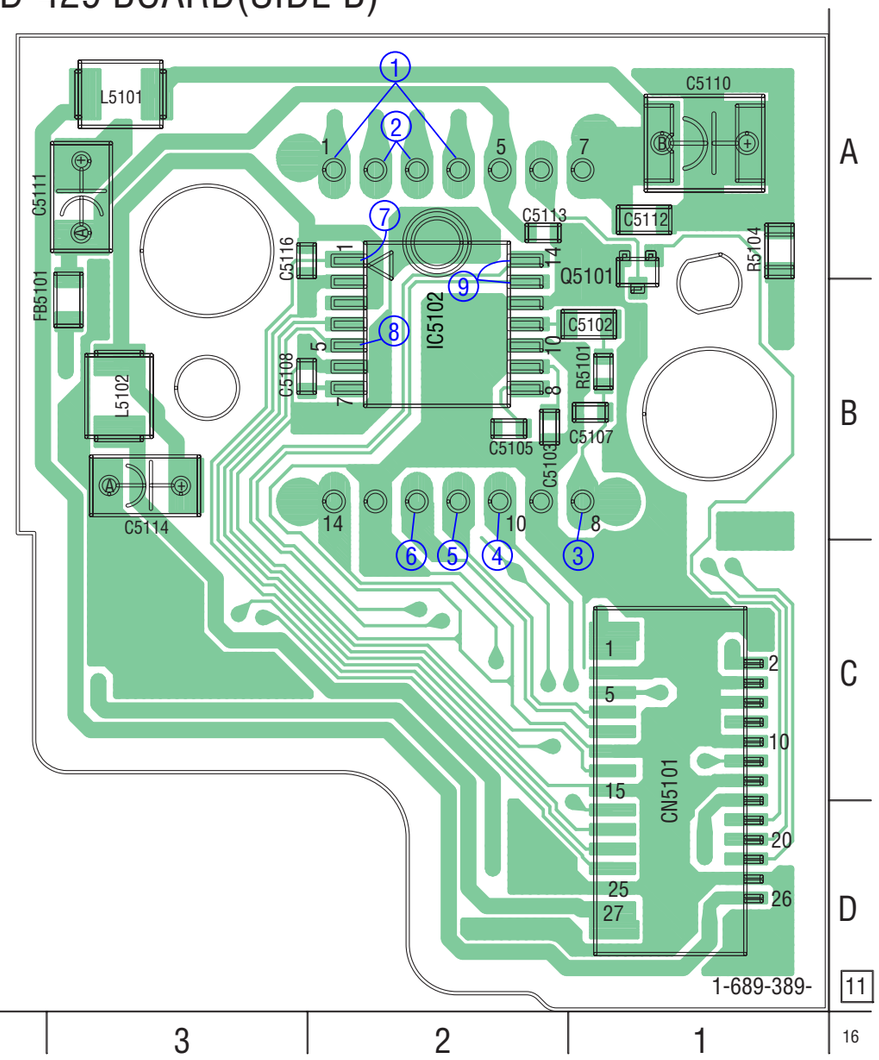
• Refer to page 4-81 for common note for printed wiring board.

• : Uses unleaded solder.

CD-429 BOARD(SIDE A)



CD-429 BOARD(SIDE B)

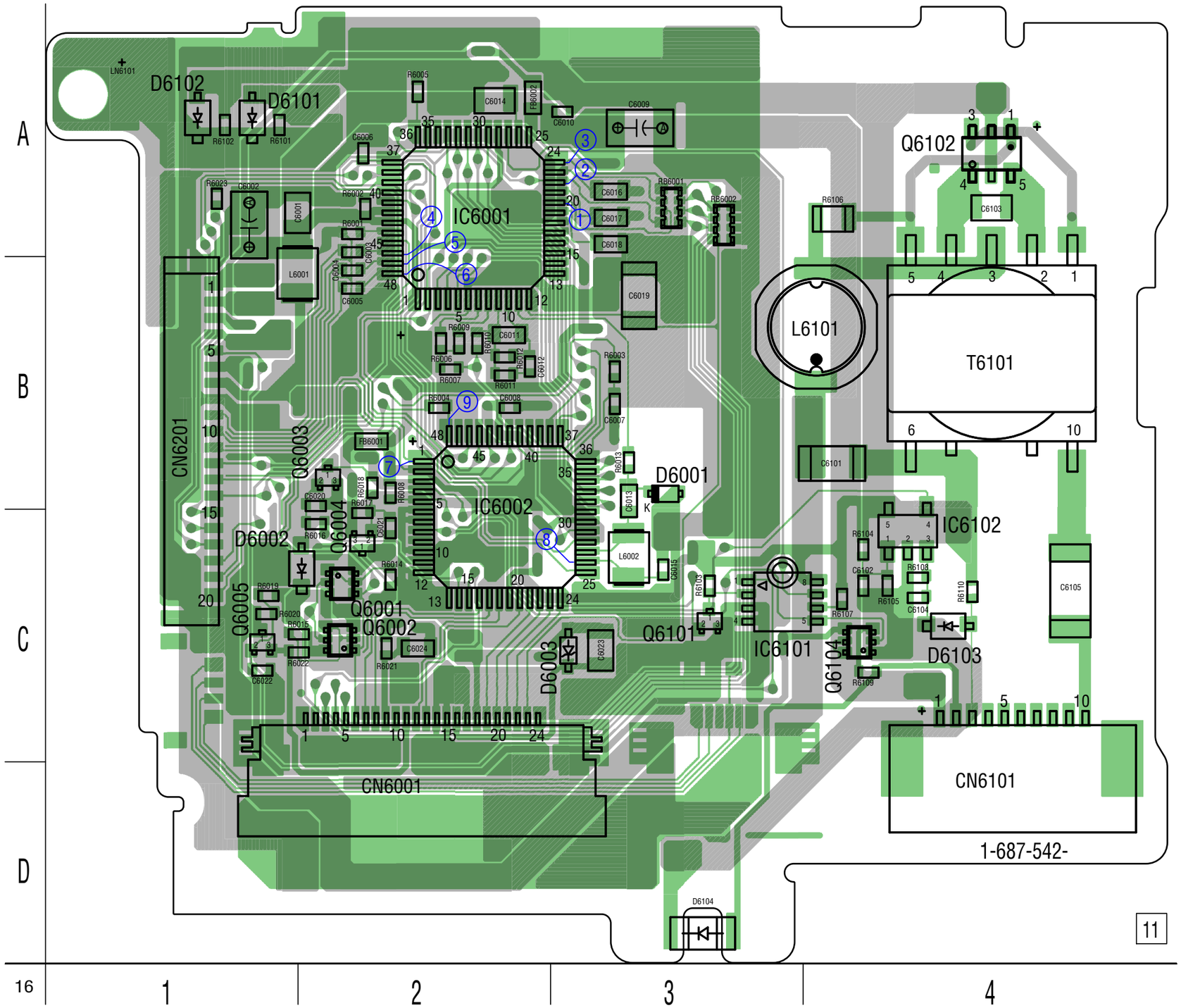


PD-188 (LCD DRIVE, BACKLIGHT DRIVE) PRINTED WIRING BOARD

• Refer to page 4-81 for common note for printed wiring board.

• : Uses unleaded solder.

PD-188 BOARD

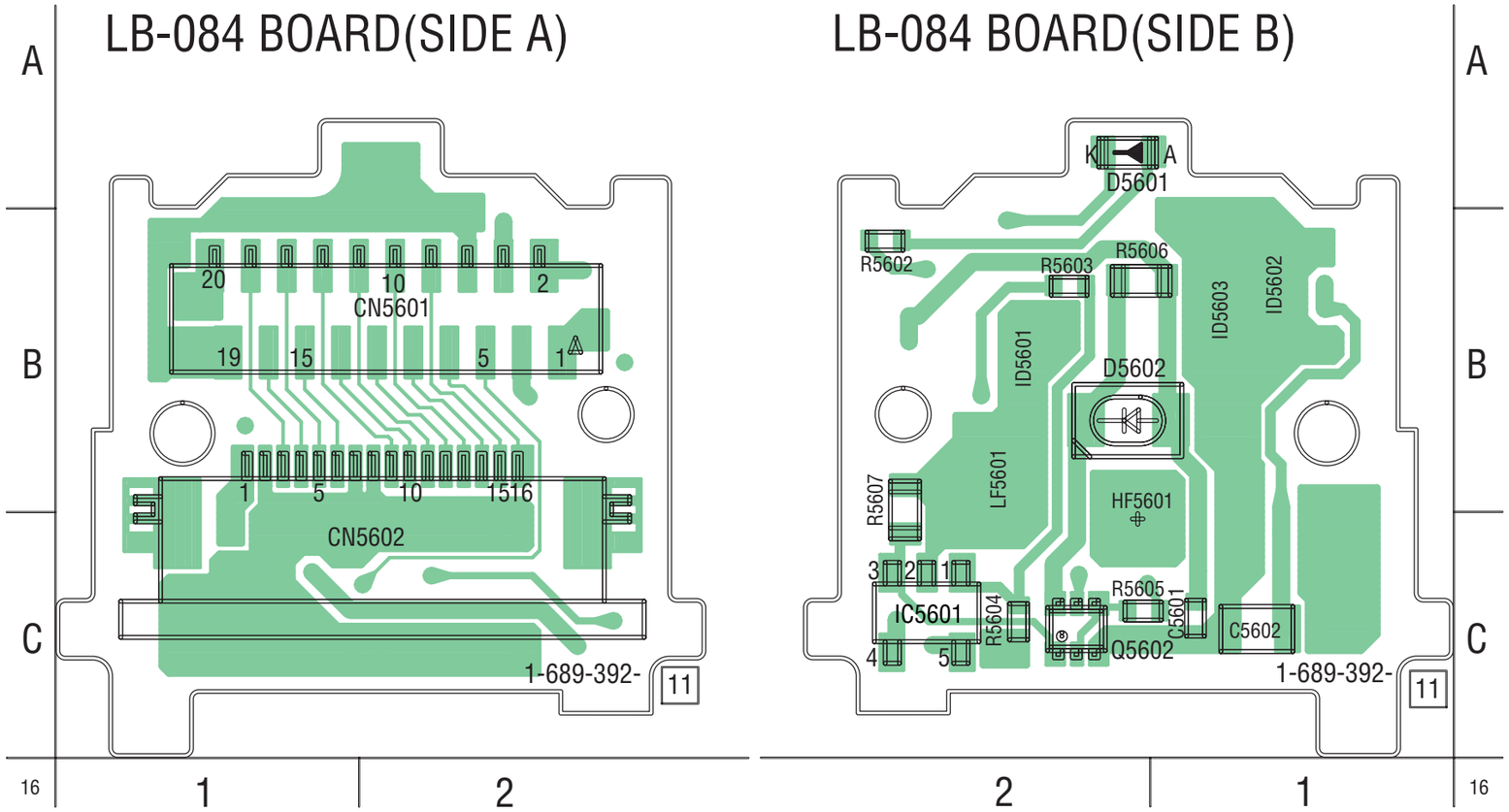


LB-084 (EVF CONNECTOR, EVF BACK LIGHT) PRINTED WIRING BOARD
FB-220 (FUNCTION SWITCH) PRINTED WIRING BOARD

• Refer to page 4-81 for common note for printed wiring board.

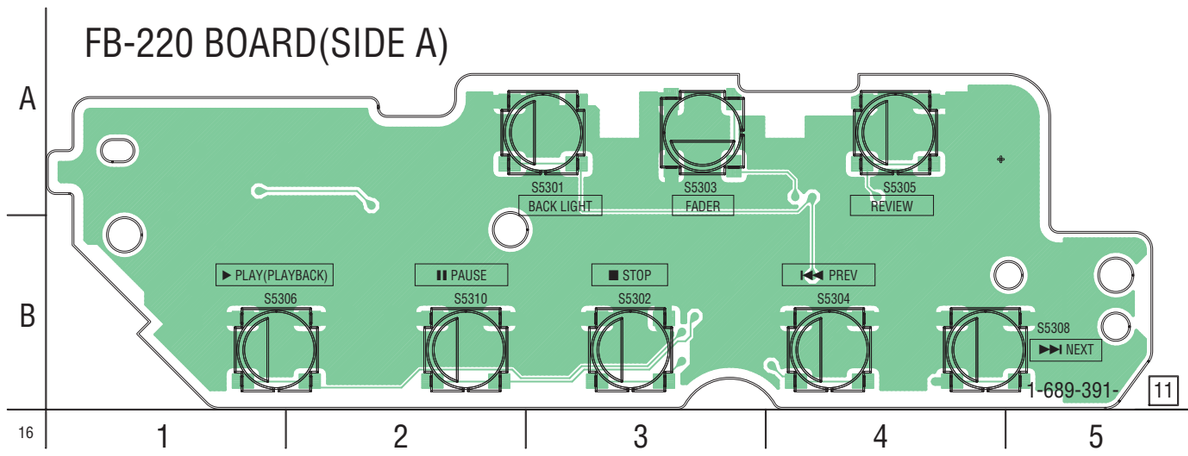
• 4F : Uses unleaded solder.

LB-084 BOARD(SIDE A)

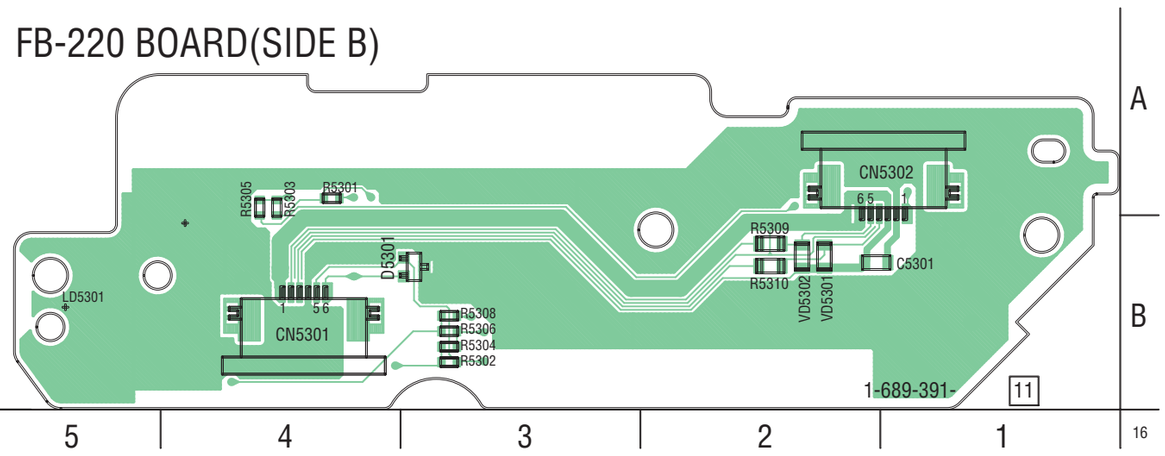


LB-084 BOARD(SIDE B)

FB-220 BOARD(SIDE A)



FB-220 BOARD(SIDE B)

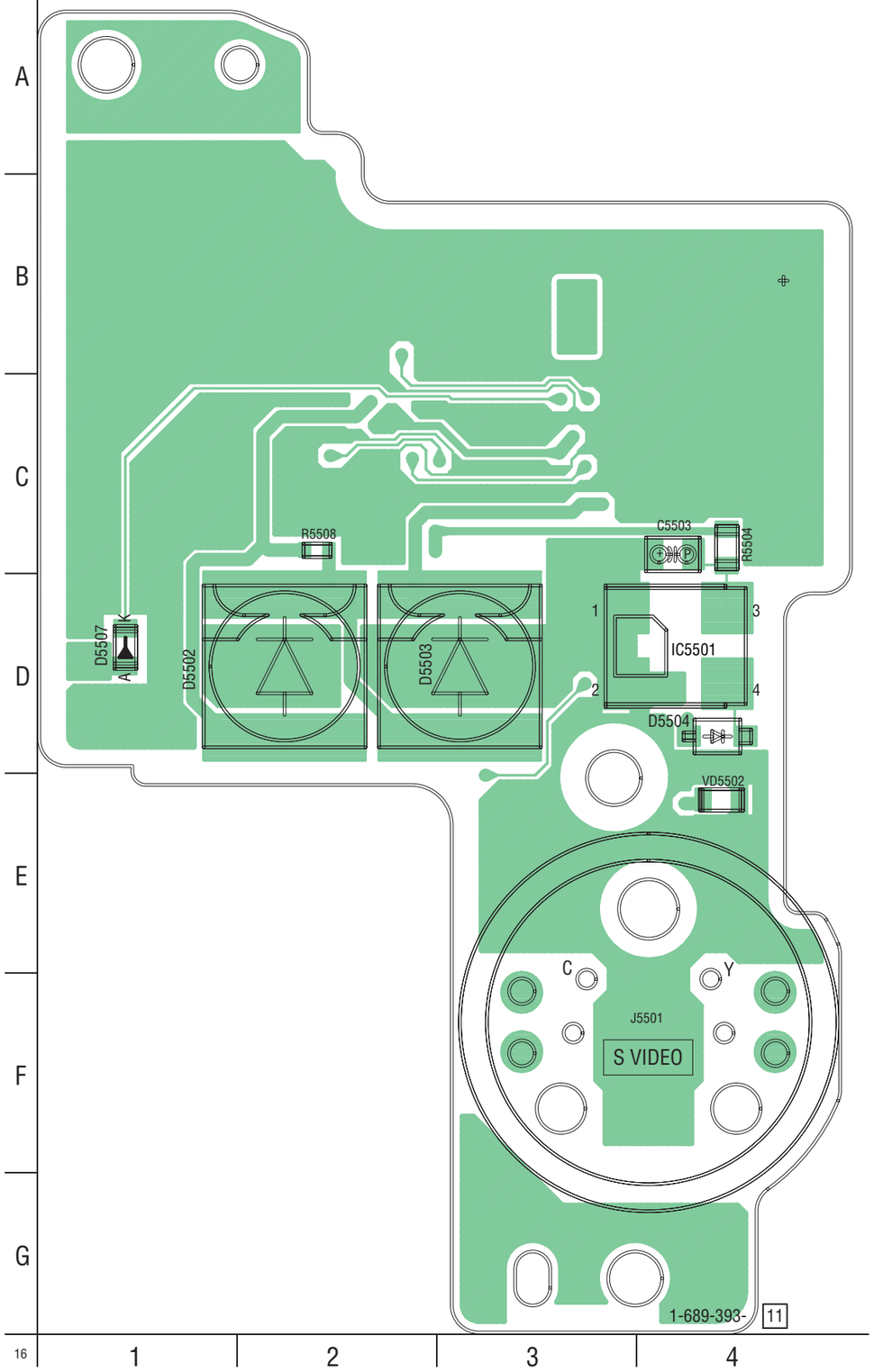


MA-420 (PITCH/YAW SENSOR, REMOTE SENSOR, MIC) PRINTED WIRING BOARD

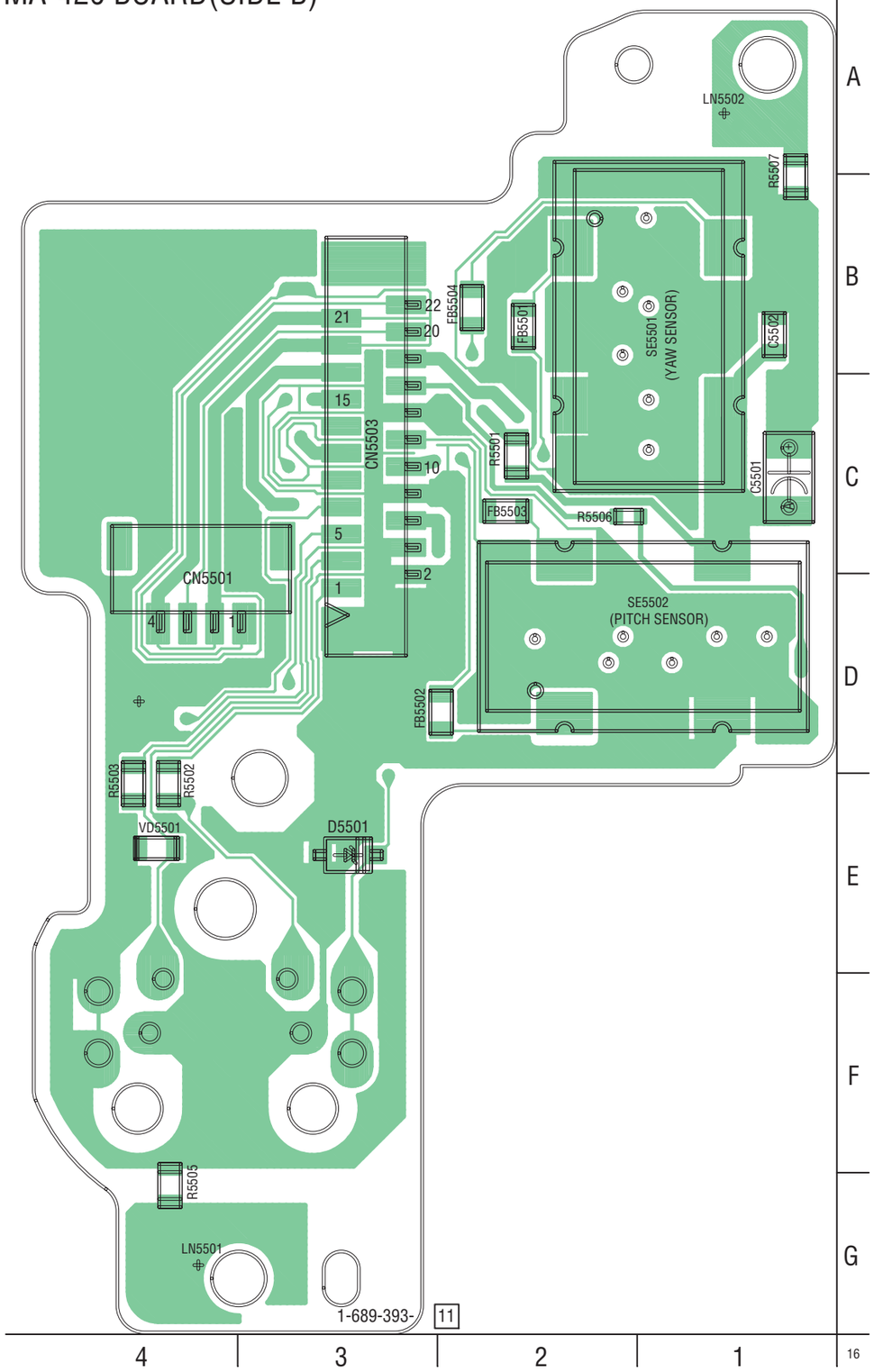
• Refer to page 4-81 for common note for printed wiring board.

• : Uses unleaded solder.

MA-420 BOARD(SIDE A)



MA-420 BOARD(SIDE B)

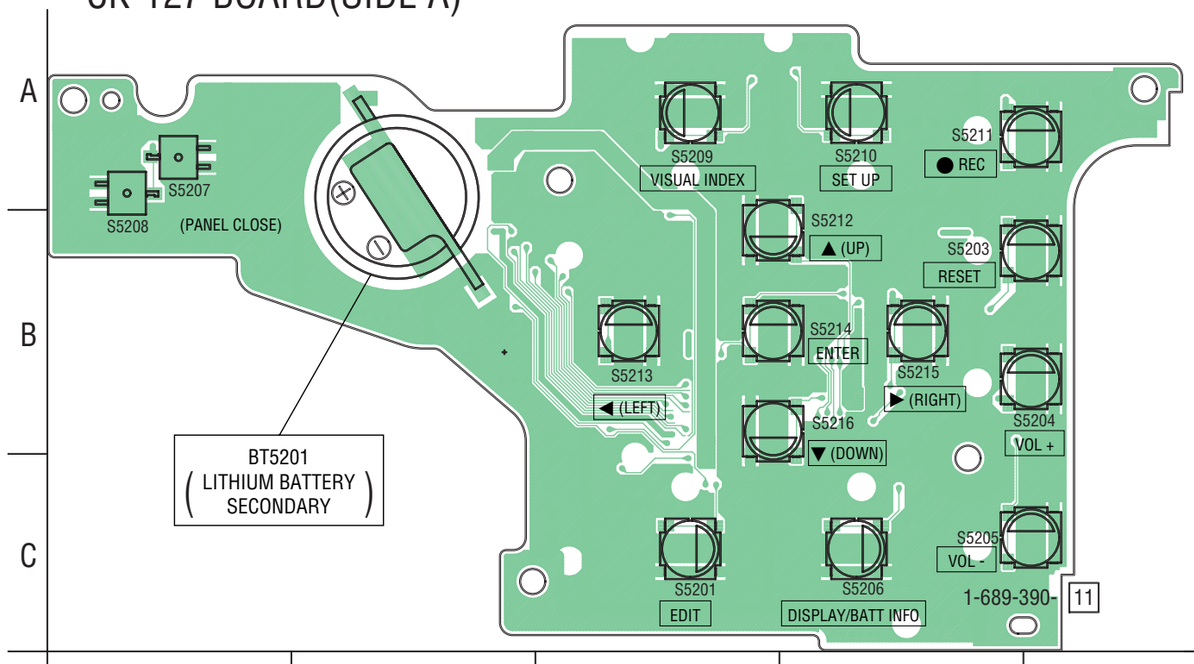


CK-127 (CONNECTOR, FUNCTION SWITCH) PRINTED WIRING BOARD

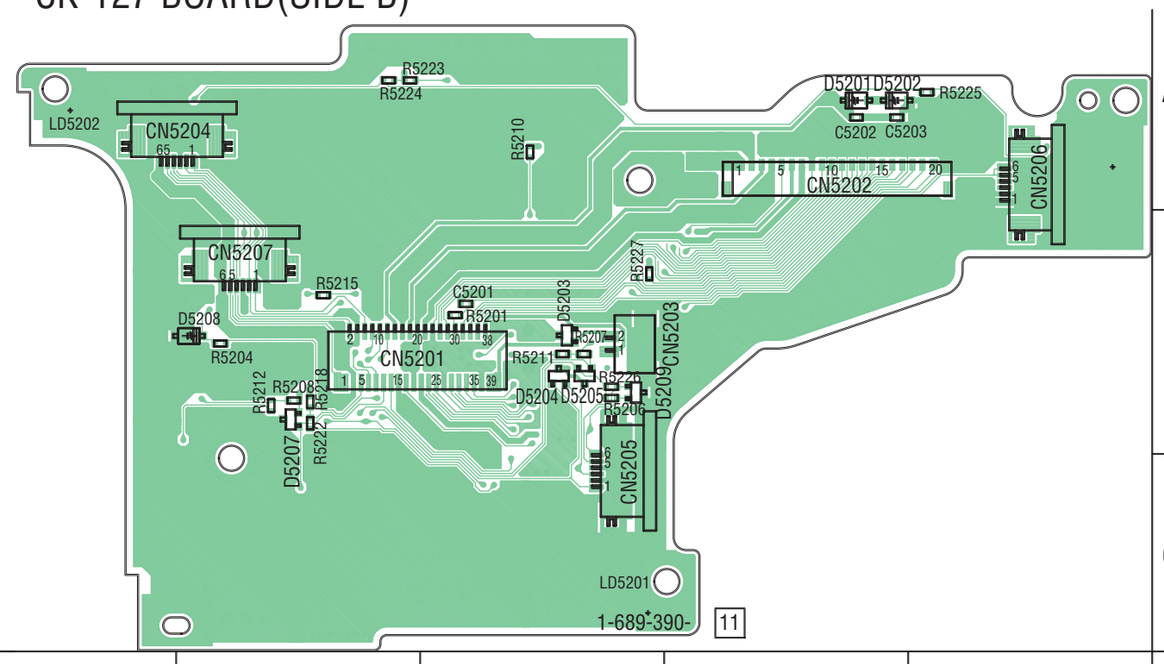
• Refer to page 4-81 for common note for printed wiring board.

• : Uses unleaded solder.

CK-127 BOARD(SIDE A)



CK-127 BOARD(SIDE B)



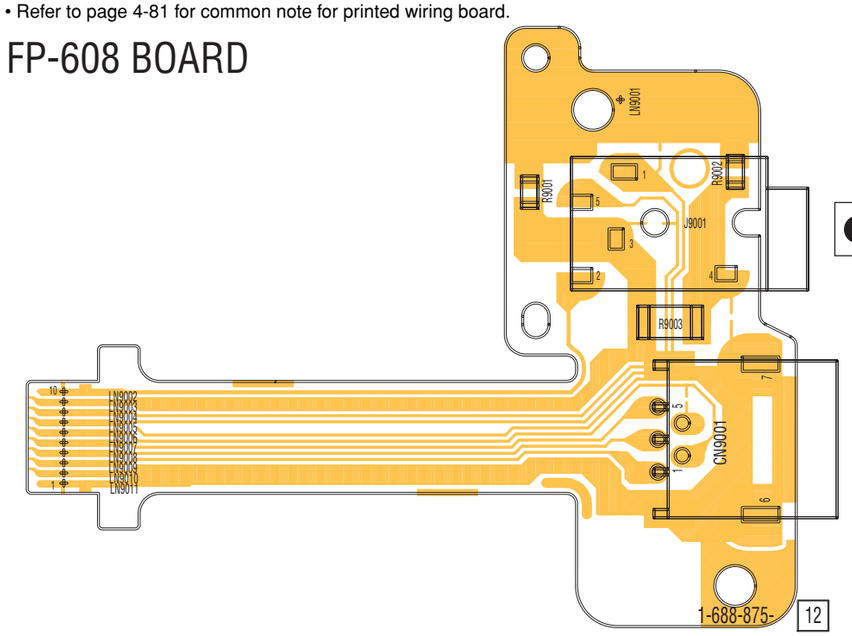
CAUTION :
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

FP-608 (USB, LANC), FP-609 (PLUNGER, EJECT), FP-610 (EXT MIC), FP-611 (AV CONNECTOR) FLEXIBLE PRINTED WIRING BOARD

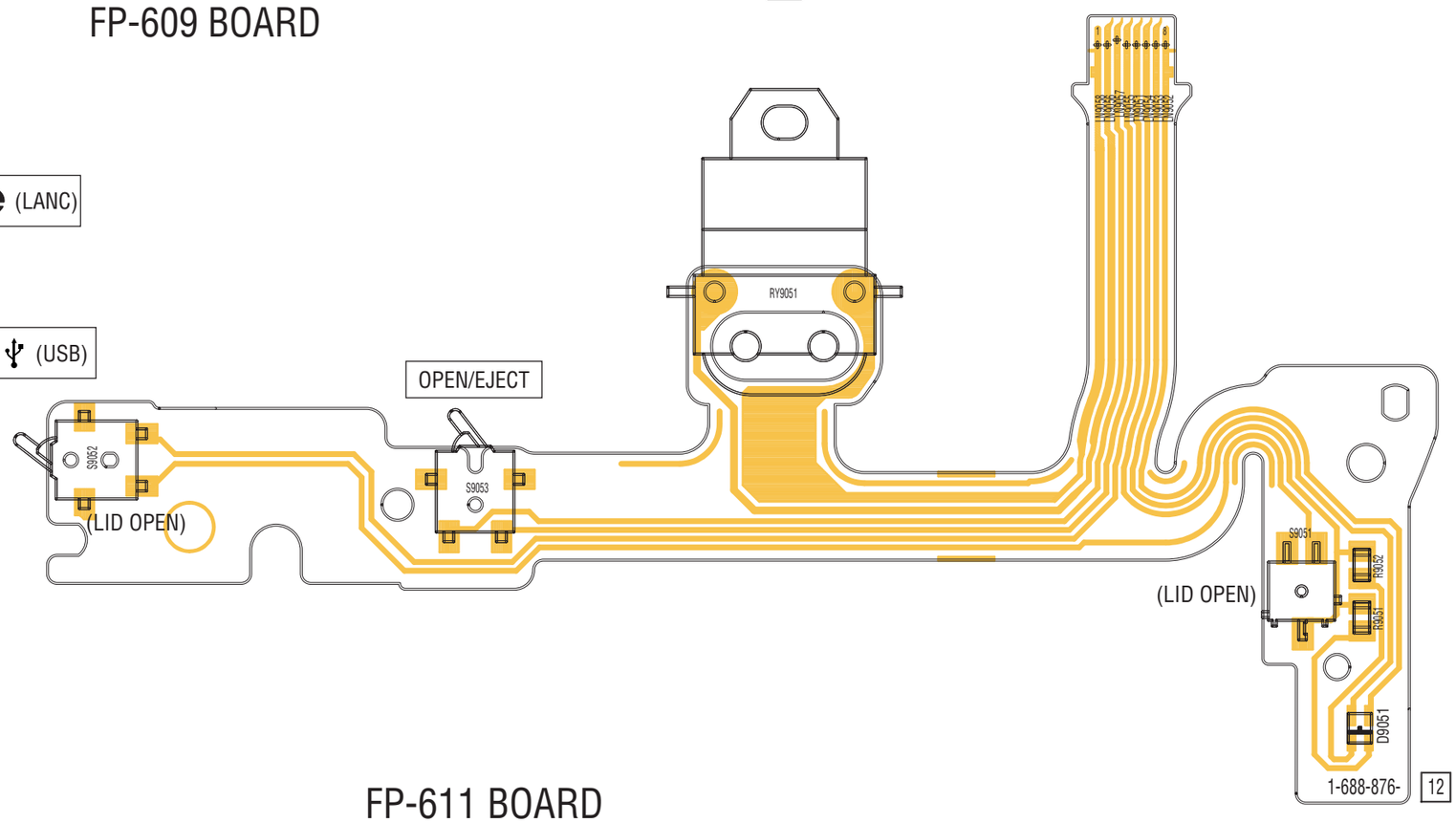
• Refer to page 4-81 for common note for printed wiring board.

• : Uses unleaded solder.

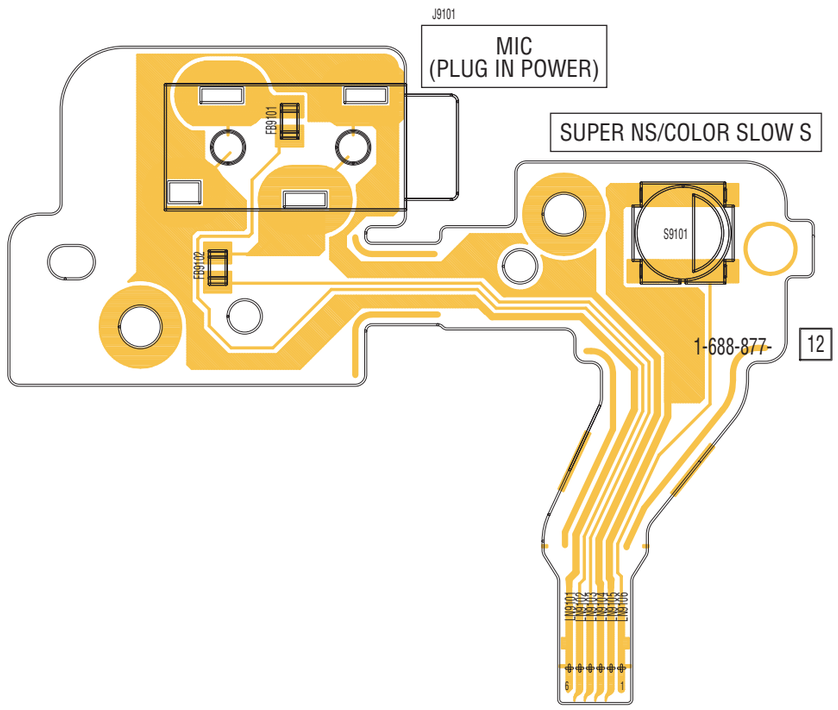
FP-608 BOARD



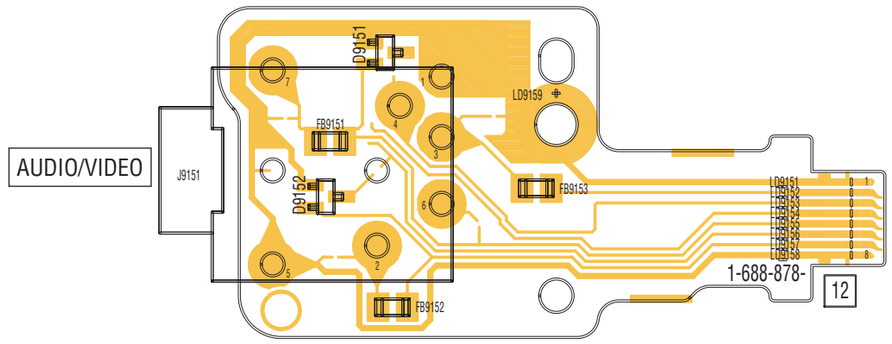
FP-609 BOARD



FP-610 BOARD



FP-611 BOARD

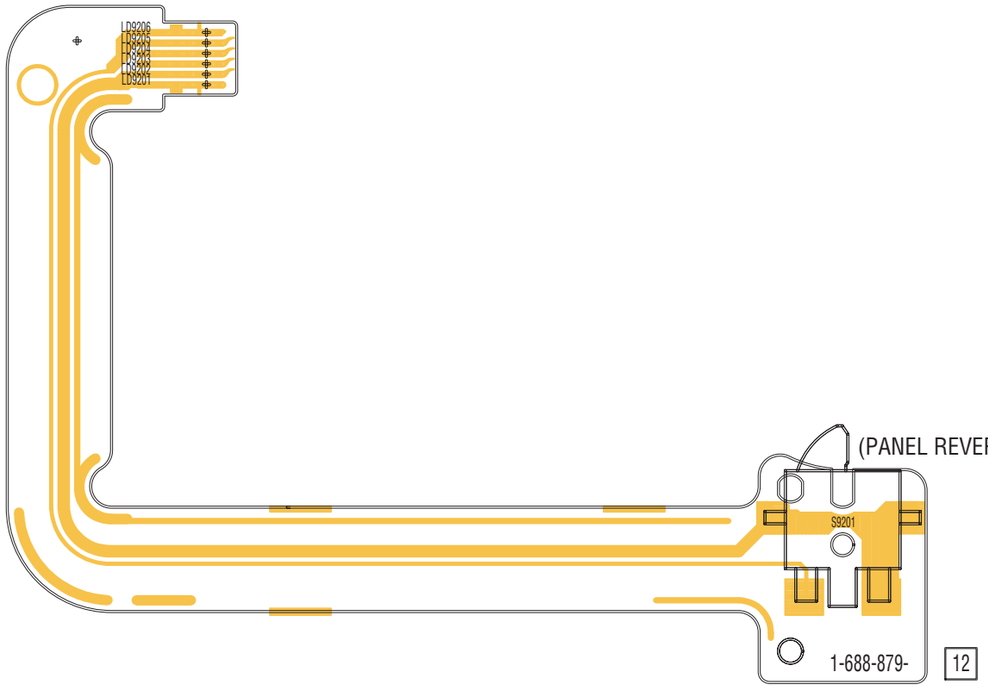


FP-612 (PANEL REVERSE), FP-613 (PANEL REVERSE) FLEXIBLE PRINTED WIRING BOARD

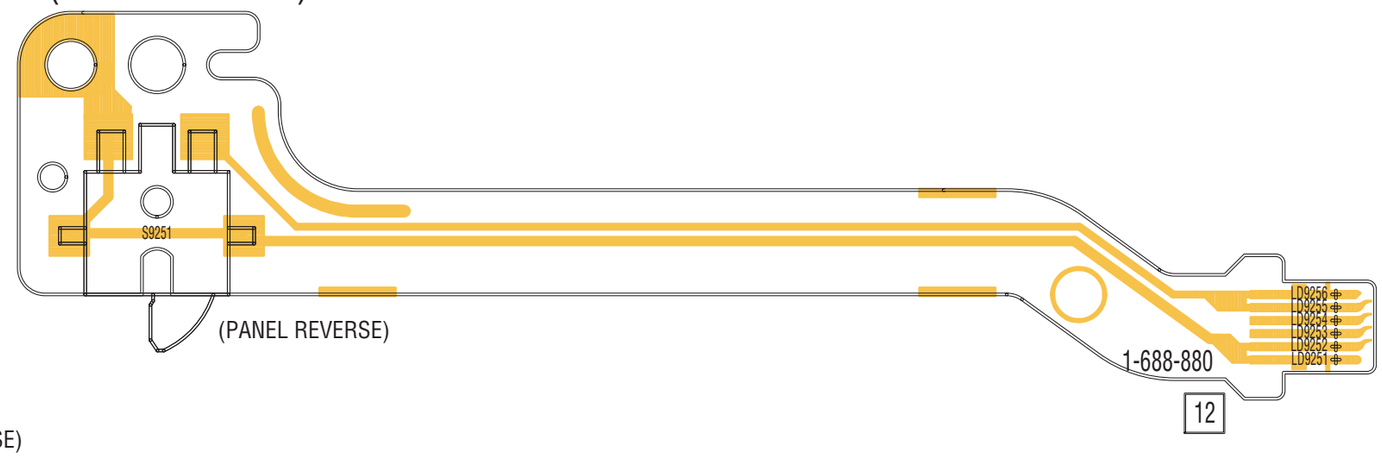
• Refer to page 4-81 for common note for printed wiring board.

• : Uses unleaded solder.

FP-612 BOARD
(DVD200/DVD200E ONLY)



FP-613 BOARD
(DVD300 ONLY)

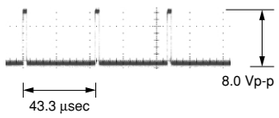


Printed wiring board of the MD-097, SS-174T and VC-310 board are not shown.
Pages from 4-97 to 4-106 are not shown.

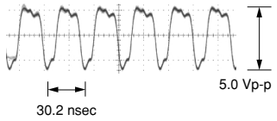
4-4. WAVEFORMS

CD-429 BOARD

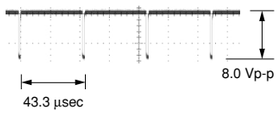
① IC5101 ①,④



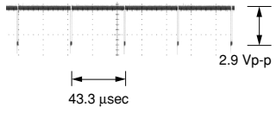
⑥ IC5101 ⑫



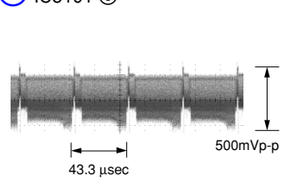
② IC5101 ②,③



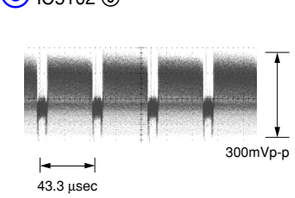
⑦ IC5102 ①



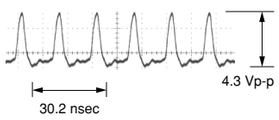
③ IC5101 ⑧



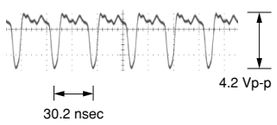
⑧ IC5102 ⑤



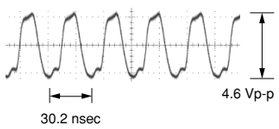
④ IC5101 ⑩



⑨ IC5102 ⑬,⑭

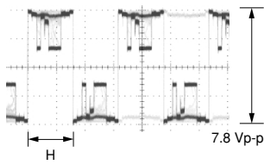


⑤ IC5101 ⑪

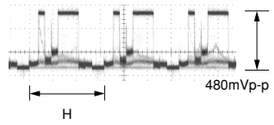


PD-188 BOARD

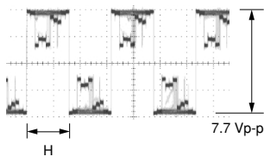
① IC6001 ⑳



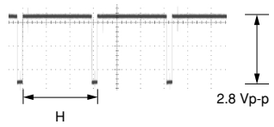
⑥ IC6001 ㊽



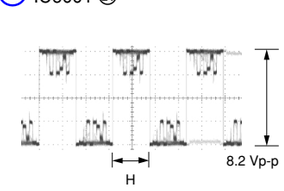
② IC6001 ㉒



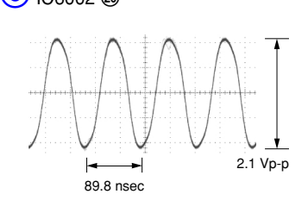
⑦ IC6002 ①



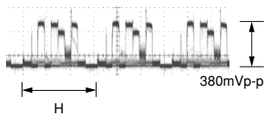
③ IC6001 ㉔



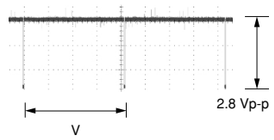
⑧ IC6002 ㉖



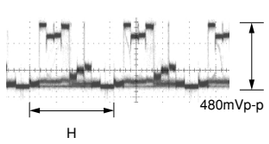
④ IC6001 ㊻



⑨ IC6002 ㊽



⑤ IC6001 ㊼



Waveforms of the VC-310 board is not shown.
Pages from 4-109 to 4-110 are not shown.

COVER

4-5. MOUNTED PARTS LOCATION

no mark : side A
* mark : side B

CD-429 BOARD

	C5101	C-1
*	C5102	B-1
*	C5103	B-2
*	C5105	B-2
	C5106	C-1
*	C5107	B-1
*	C5108	B-2
*	C5110	A-1
*	C5111	A-3
*	C5112	A-1
*	C5113	A-2
*	C5114	B-3
*	C5116	A-2
	C5117	C-2
*	CN5101	C-1
	CN5102	D-2
*	FB5101	B-3
	FB5102	C-1
	IC5101	B-2
*	IC5102	B-2
*	L5101	A-3
*	L5102	B-3
*	Q5101	A-1
*	R5101	B-1
	R5102	C-1
*	R5104	A-1
	R5105	C-1
	R5106	C-1

PD-188 BOARD

	C6001	A-2
	C6002	A-1
	C6003	A-2
	C6004	B-2
	C6005	B-2
	C6006	A-2
	C6007	B-3
	C6008	B-2
	C6009	A-3
	C6010	A-3
	C6011	B-2
	C6012	B-2
	C6013	B-3
	C6014	A-2
	C6015	C-3
	C6016	A-3
	C6017	A-3
	C6018	A-3
	C6019	B-3
	C6020	B-2
	C6021	C-2
	C6022	C-1
	C6023	C-3
	C6024	C-2
	C6101	B-4
	C6102	C-4
	C6103	A-4
	C6104	C-4
	C6105	C-4
	CN6001	D-2
	CN6101	D-4
	CN6201	B-1
	CN6202	C-1
	CN6203	D-3
	D6001	B-3
	D6002	C-2
	D6003	C-3
	D6101	A-1
	D6102	A-1
	D6103	C-4
	D6104	D-3
	FB6001	B-2
	FB6002	A-2
	IC6001	A-2
	IC6002	C-2
	IC6101	C-3
	IC6102	C-4
	L6001	B-2
	L6002	C-3
	L6101	B-4
	Q6001	C-2
	Q6002	C-2
	Q6003	B-2
	Q6004	C-2
	Q6005	C-1
	Q6101	C-3
	Q6102	A-4
	Q6103	A-4
	Q6104	C-4
	R6001	A-2
	R6002	A-2
	R6003	B-3
	R6004	B-2
	R6005	A-2
	R6006	B-2
	R6007	B-2
	R6008	B-2
	R6009	B-2
	R6010	B-2
	R6011	B-2
	R6012	B-2
	R6013	B-3
	R6014	C-2
	R6015	C-2
	R6016	C-2
	R6017	C-2
	R6018	B-2
	R6019	C-1
	R6020	C-1
	R6021	C-2
	R6022	C-2
	R6023	A-1
	R6101	A-1
	R6102	A-1
	R6103	C-3
	R6104	C-4
	R6105	C-4
	R6106	A-4
	R6107	C-4
	R6108	C-4
	R6109	C-4
	R6110	C-4
	RB6001	A-3
	RB6002	A-3
	T6101	B-4

LB-084 BOARD

*	C5601	C-1
*	C5602	C-1
	CN5601	B-1
	CN5602	C-2
*	D5601	A-2
*	D5602	B-2
*	IC5601	C-2
*	Q5602	C-2
*	R5602	B-2
*	R5603	B-2
*	R5604	C-2
*	R5605	C-2
*	R5606	B-2
*	R5607	B-2

FB-220 BOARD

*	C5301	B-2
*	CN5301	B-4
*	CN5302	A-1
*	D5301	B-3
*	R5301	A-4
*	R5302	B-3
*	R5303	A-4
*	R5304	B-3
*	R5305	A-4
*	R5306	B-3
*	R5308	B-3
*	R5309	B-2
*	R5310	B-2
	S5301	A-3
	S5302	B-3
	S5303	A-3
	S5304	B-4
	S5305	A-4
	S5306	B-1
	S5308	B-4
	S5310	B-2
*	VD5301	B-2
*	VD5302	B-2

COVER

4-3. PRINTED WIRING BOARDS

no mark : side A
* mark : side B

MA-420 BOARD

* C5501 C-1
* C5502 B-1
C5503 C-4

* CN5501 C-4
* CN5503 C-3

* D5501 E-3
D5502 D-2
D5503 D-3
D5504 D-4
D5507 D-1

* FB5501 B-2
* FB5502 D-3
* FB5503 C-2
* FB5504 B-2

IC5501 D-4

J5501 F-4

* R5501 C-2
* R5502 E-4
* R5503 E-4
R5504 C-4
* R5505 G-4
* R5506 C-2
* R5507 A-1
R5508 C-2

* SE5501 B-1
* SE5502 D-1

* VD5501 E-4
VD5502 E-4

CK-127 BOARD

BT5201 A-2

* C5201 B-3
* C5202 A-2
* C5203 A-2

* CN5201 B-3
* CN5202 A-2
* CN5203 B-3
* CN5204 A-4
* CN5205 C-3
* CN5206 A-1
* CN5207 B-4

* D5201 A-2
* D5202 A-2
* D5203 B-3
* D5204 B-3
* D5205 B-3
* D5207 B-4
* D5208 B-4
* D5209 B-3

* R5201 B-3
* R5204 B-4
* R5206 B-3
* R5207 B-3
* R5208 B-4
* R5210 A-3
* R5211 B-3
* R5212 B-4
* R5215 B-4
* R5218 B-4
* R5222 B-4
* R5223 A-4
* R5224 A-4
* R5225 A-1
* R5226 B-3
* R5227 B-3

S5201 C-3
S5203 B-4
S5204 B-4
S5205 C-4
S5206 C-4
S5207 A-1
S5208 A-1
S5209 A-3
S5210 A-4
S5211 A-4
S5212 B-3
S5213 B-3
S5214 B-3
S5215 B-4
S5216 B-3

Mounted parts location of the MD-097, SS-174T and VC-310 board are not shown.
Pages from 4-113 to 4-116 are not shown.

COVER

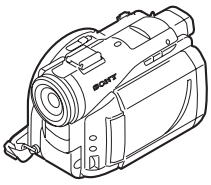
NOTE

5. REPAIR PARTS LIST

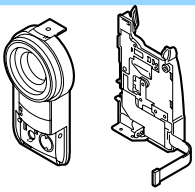
NOTE: Characters A to Z of the electrical parts list indicate location of exploded views in which the desired part is shown.

Link

EXPLODED VIEWS

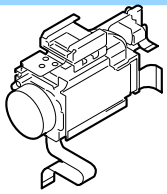


OVERALL



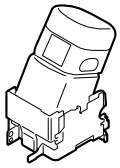
A

F PANEL/BATTERY PANEL



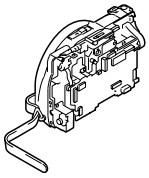
B

LENS



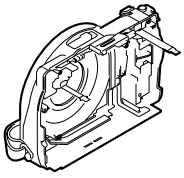
C

EVF



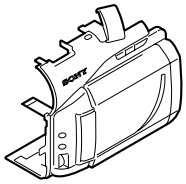
D

MD



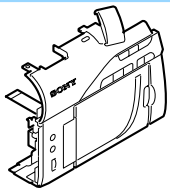
E

CABINET (L)



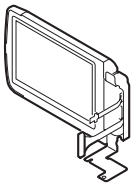
F

CABINET (R) (DVD300)



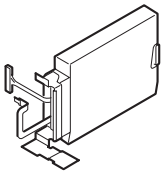
G

CABINET (R) (DVD200/DVD200E)



H

LCD (DVD300)



I

LCD (DVD200/DVD200E)

Link

ELECTRICAL PARTS LIST

ACCESSORIES

CD-429 BOARD B	FP-610 BOARD F G	MA-420 BOARD A
CK-127 BOARD F G	FP-611 BOARD D	PD-188 BOARD H I
FB-220 BOARD F G	FP-612 BOARD I	MD-097 BOARD
FP-608 BOARD E	FP-613 BOARD H	SS-174T BOARD D
FP-609 BOARD E	LB-084 BOARD C	VC-310 BOARD D

COVER

5. REPAIR PARTS LIST

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- CAPACITORS:
  uF: µF
- COILS
  uH: µH
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...
- Abbreviation
  CND : Canadian model
  AUS : Australian model
  EE : East European model
  HK : Hong Kong model
  KR : Korea model

When indicating parts by reference number, please include the board name.

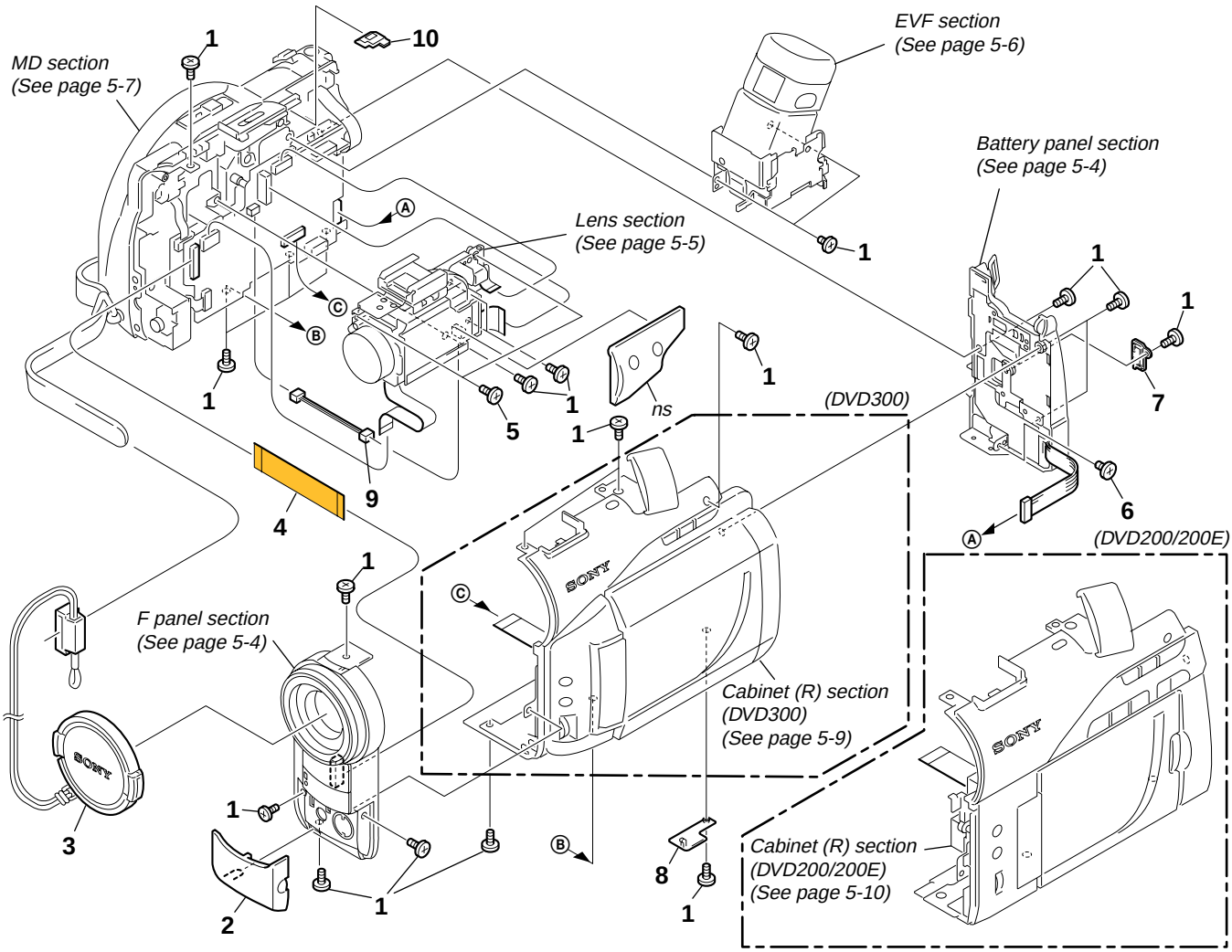
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

5-1. EXPLODED VIEWS

5-1-1. OVERALL SECTION

ns : not supplied



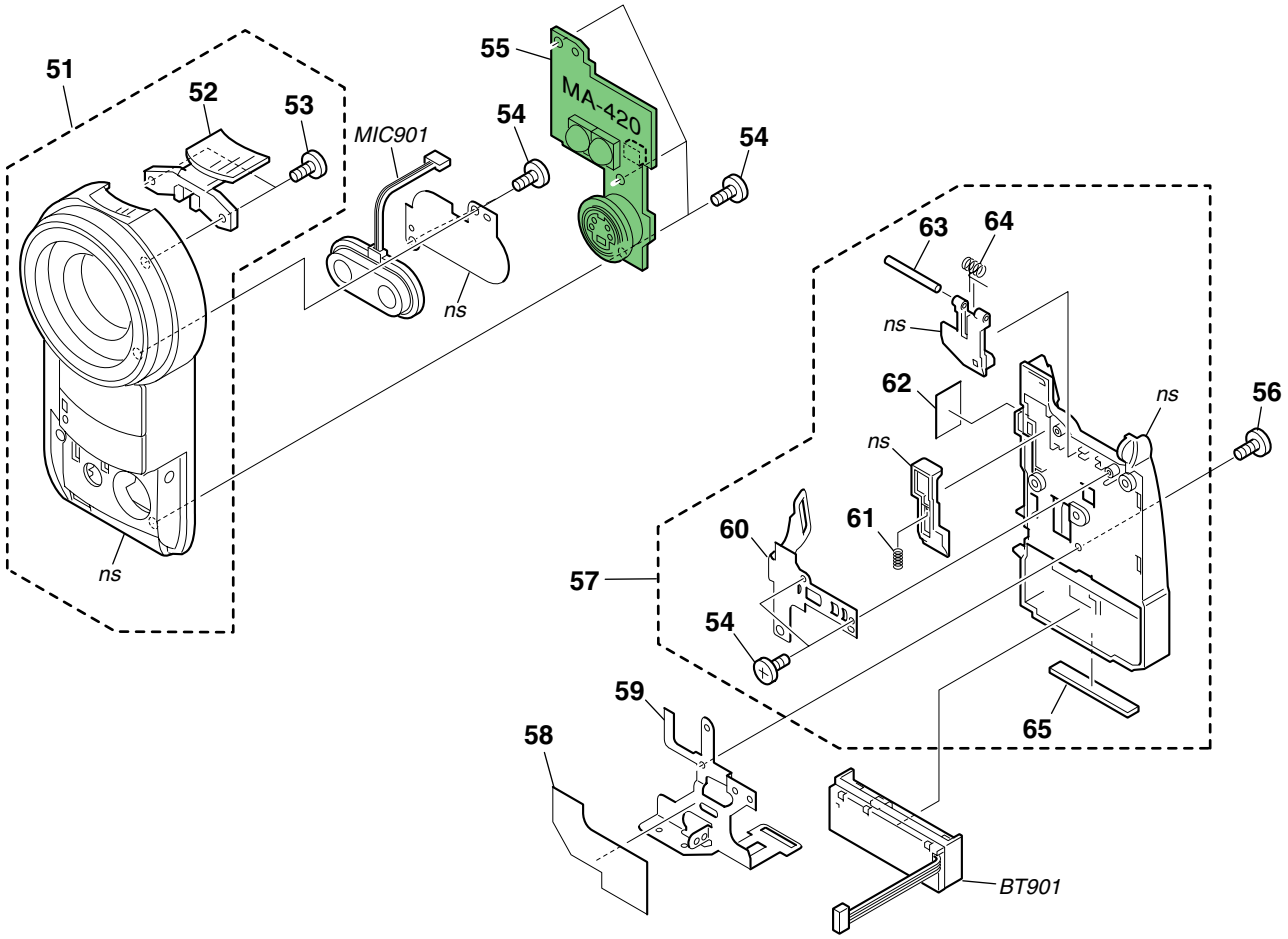
Ref. No.	Part No.	Description
1	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
2	3-084-647-11	COVER (F), JACK (DVD200)
2	3-084-647-21	COVER (F), JACK (DVD300)
2	3-084-647-41	COVER (F), JACK (DVD200E)
3	X-3953-658-1	CAP ASSY, LENS
4	1-688-710-11	FP-605 FLEXIBLE BOARD
5	3-078-890-01	SCREW, TAPPING
6	3-078-889-11	SCREW (M1.7)
7	3-084-659-01	LID (BT), CPC
8	3-084-660-01	LID (BOTTOM), CPC
9	1-962-367-11	HARNESS (CV-068)
10	3-084-667-01	WATER PACKING

COVER

5. REPAIR PARTS LIST

5-1-2. F PANEL/BATTERY PANEL SECTION

ns : not supplied



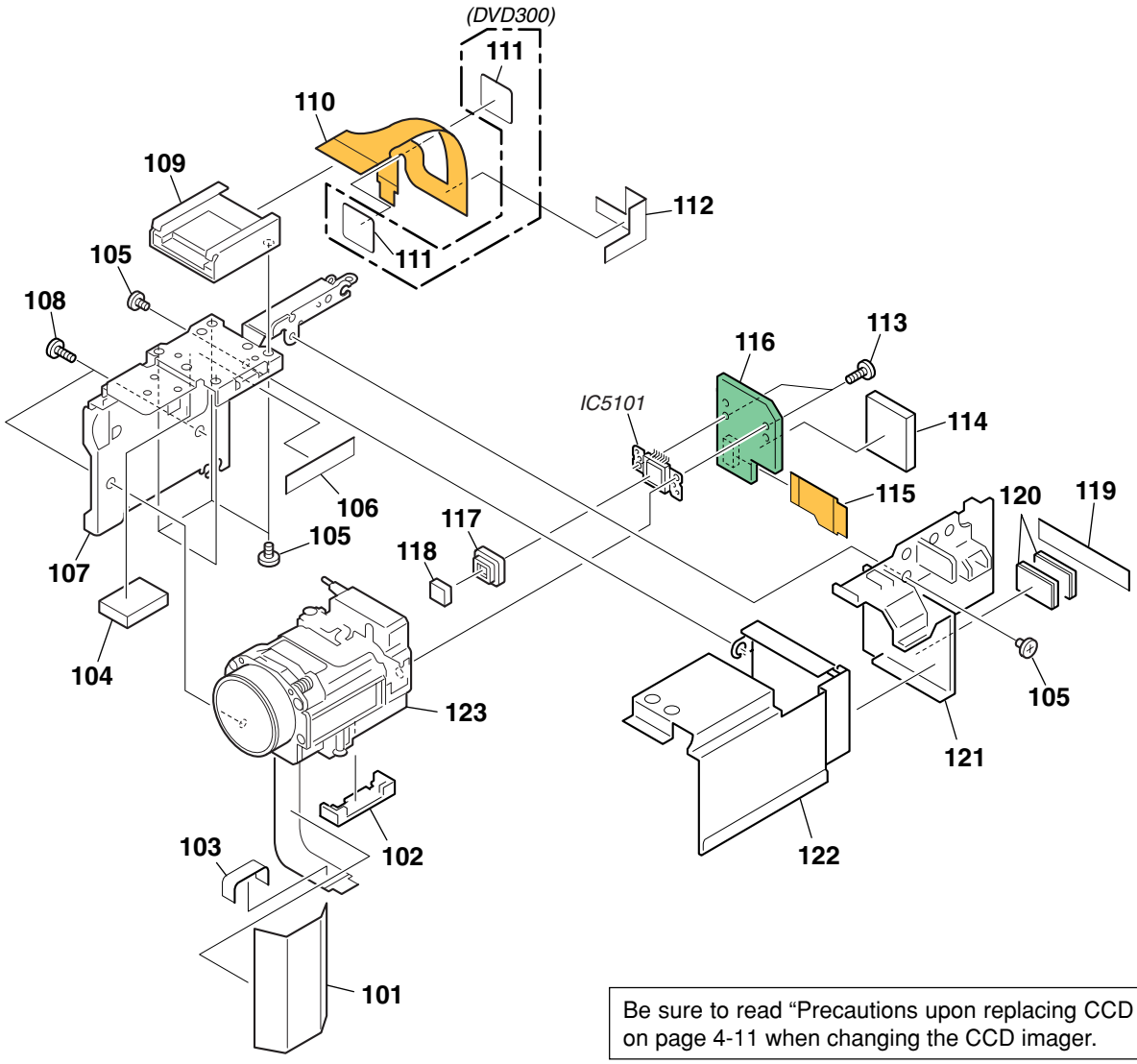
Ref. No.	Part No.	Description
51	X-3953-609-1	PANEL (750) ASSY, FRONT
52	3-084-724-01	PLATE, FRONT HEAT
53	3-055-573-21	SCREW (M1.7), LOCK ACE, P2
54	3-078-890-01	SCREW, TAPPING
55	A-7078-801-A	MA-420 BOARD, COMPLETE
56	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
57	X-3953-600-1	PANEL ASSY, BATTERY
58	3-084-666-01	SHEET, BATT
59	3-084-661-01	BRACKET (LOWER), STRAP

Ref. No.	Part No.	Description
60	3-084-750-01	SHEET METAL (UPPER), STRAP
61	3-968-771-01	SPRING, COMPRESSION
62	3-084-773-01	TAPE (BT)
63	3-968-770-01	SHAFT, BT
64	3-968-768-01	SPRING, LOCK
* 65	3-055-189-01	FOOT (A)
BT901	1-694-772-11	TERMINAL BOARD, BATTERY
MIC901	1-418-351-11	MICROPHONE UNIT

COVER

5. REPAIR PARTS LIST

5-1-3. LENS SECTION



Be sure to read “Precautions upon replacing CCD imager” on page 4-11 when changing the CCD imager.

Ref. No.	Part No.	Description
101	3-084-692-01	SHEET, LENS (650)
102	X-3953-094-2	PROTECTOR ASSY, MR
103	3-087-636-01	SHEET (FPC), SUCTION WATER
104	3-084-691-01	SHEET, LF650 RADIATION
105	3-078-889-11	SCREW (M1.7)
106	3-084-688-01	SHEET (L), SUCTIN WATER
107	3-084-786-01	FRAME (750), LENS
108	3-078-890-01	SCREW, TAPPING
109	1-785-594-11	CONNECTOR (HOT SHOE), OUTER
110	1-688-709-11	FP-604 FLEXIBLE BOARD (DVD200)
110	1-860-323-01	FP-868 FLEXIBLE BOARD (DVD200E/DVD300)
111	3-086-147-01	SHEET, ABSORPTION (DVD300)
112	3-084-689-01	SHEET, HOT COPPER LEAF (DVD200/DVD300)

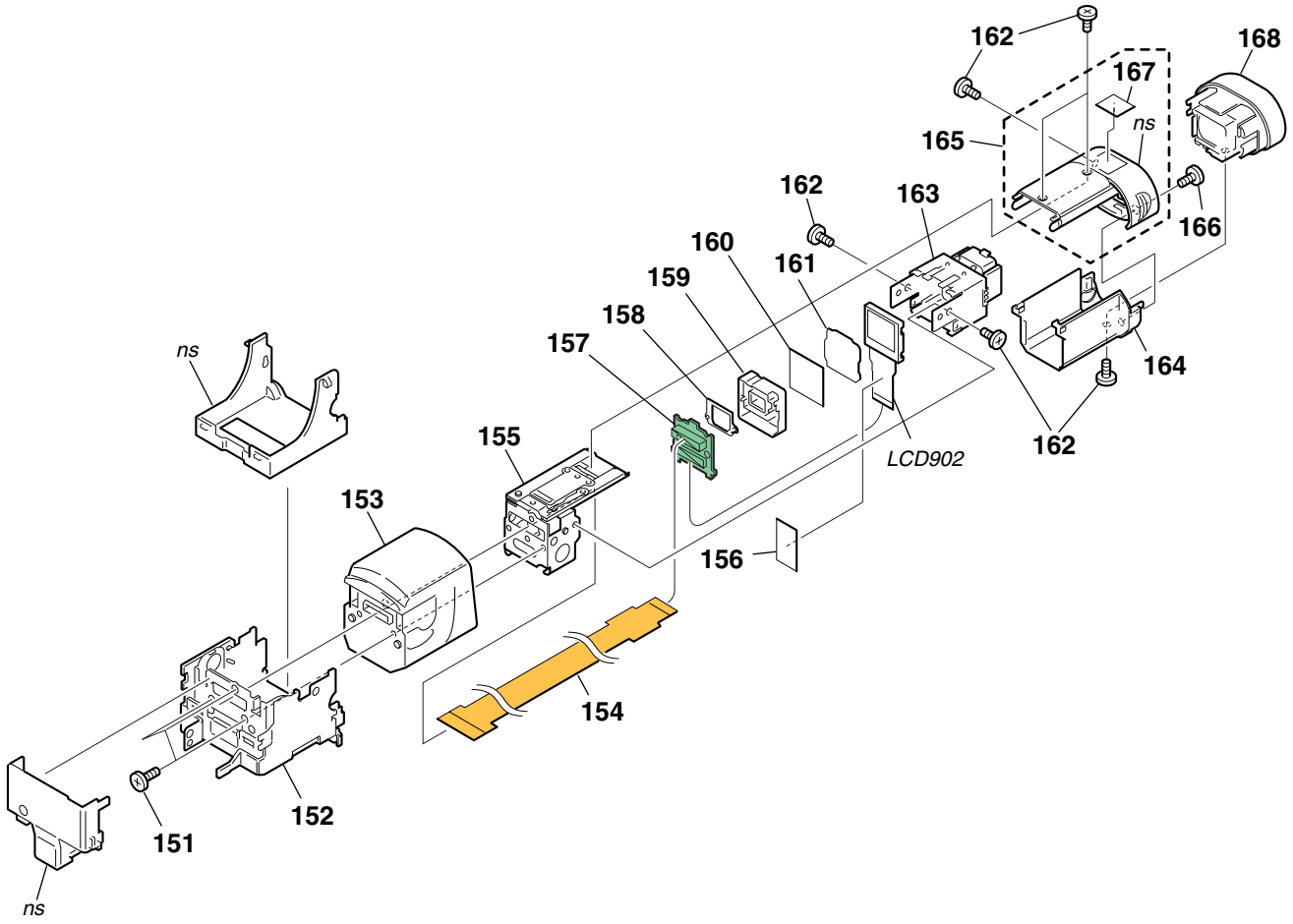
Ref. No.	Part No.	Description
112	3-086-146-01	SHEET, HOT COPPER LEAF (DVD200E)
113	3-080-204-21	SCREW, TAPPING, P2
114	3-084-685-01	SHEET, CD RADIATION
115	1-688-711-11	FP-606 FLEXIBLE BOARD
116	A-7078-816-A	CD-429 (MEGA) BOARD, COMPLETE
117	3-053-973-01	RUBBER (W), SEAL
118	1-758-569-11	FILTER BLOCK, OPTICAL
119	3-084-690-01	SHEET, ADHESIVE, CORE
120	1-469-298-31	FILTER, EMI
121	3-084-343-01	HOLDER, LENS
122	3-084-791-01	HEAT SINK (750), CD
123	A-7111-109-A	751B (CZ) BLOCK ASSEMBLY
IC5101	A-7111-336-A	CCD BLOCK ASSY (CCD IMAGER)

COVER

5. REPAIR PARTS LIST

5-1-4. EVF SECTION

ns : not supplied

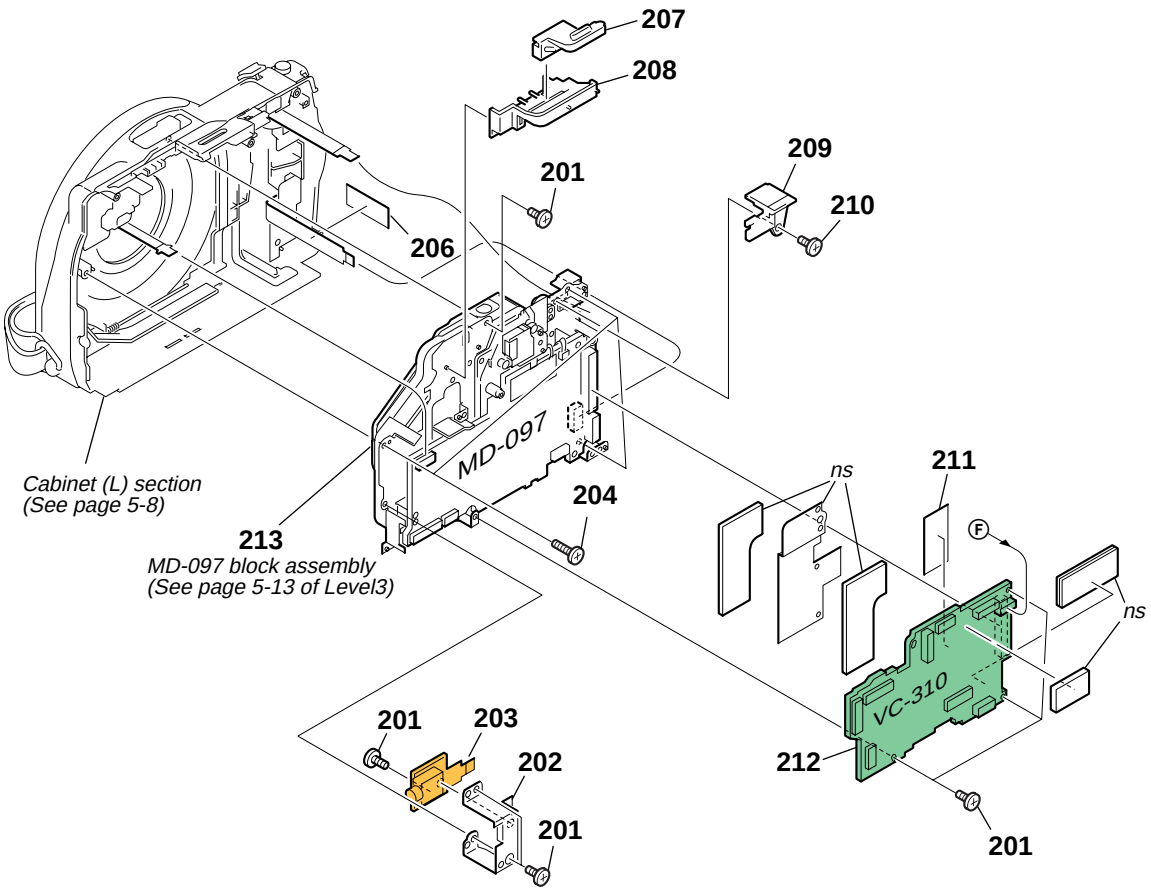


Ref. No.	Part No.	Description
151	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
152	X-3953-605-1	HINGE ASSY, VF
153	3-084-760-01	CABINET, VF TILT
154	1-688-708-11	FP-603 FLEXIBLE BOARD
155	X-3953-118-1	SLIDE ASSY, VF
156	3-083-290-01	SHEET VF
157	A-7078-802-A	LB-084 BOARD, COMPLETE
158	3-080-615-01	CUSHION (LB) (40)
159	3-080-618-01	GUIDE (40), LAMP
160	3-080-613-01	ILLUMINATOR (40)

Ref. No.	Part No.	Description
161	3-080-614-01	SHEET (40), PRISM
162	3-080-198-11	SCREW(M1.7),LOCK ACE,P2
163	X-3953-119-1	CABINET ASSY, LCD
164	3-080-617-11	CABINET (LOWER), VF SLIDE
165	X-3953-602-1	CABINET (UPPER) ASSY, VF SLIDE
166	3-078-890-01	SCREW, TAPPING
167	3-074-433-01	LABEL, COLOR (VF)
168	X-3953-603-2	EYE CUP (55) ASSY
LCD902	8-753-036-70	LCX032ANA-5

5-1-5. MD SECTION

ns : not supplied



Ref. No.	Part No.	Description
201	3-078-889-11	SCREW (M1.7)
202	3-084-658-01	FRAME, JK
203	A-7078-812-A	FP-611 BOARD, COMPLETE (DVD200/DVD200E)
203	A-7078-822-A	FP-611 (35) BOARD, COMPLETE (DVD300)
204	3-080-204-21	SCREW, TAPPING, P2
206	CAUTION	TAPE (0716)
207	3-084-787-01	BASE (750), NS
208	3-084-788-01	KNOB (750), NS
209	3-084-662-01	BLIND, ZOOM
210	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
211	3-087-264-01	SHEET, INSULATING, VC
212	A-7078-815-A	VC-310 (MEGA) BOARD, COMPLETE (DVD200/DVD300) (SERVICE)
212	A-7111-388-A	VC-310 (MEGA P) BOARD, COMPLETE (DVD200E) (SERVICE)
213	A-7111-651-A	MD-097 BLOCK ASSY (SERVICE)

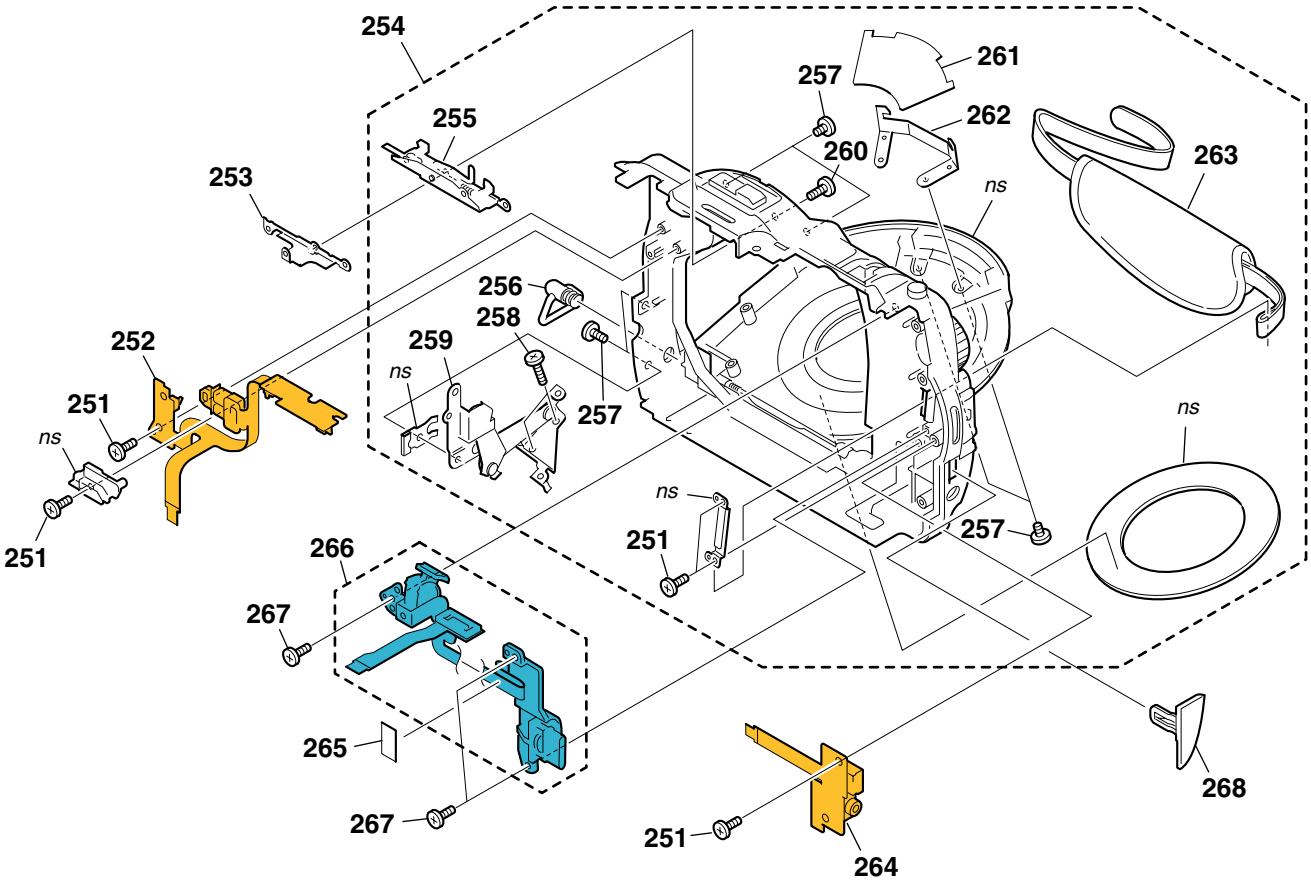
CAUTION :
For the parts of 206 : TAPE (0716) (3-084-668-01) cut WOVEN (T0.25), FABRIC NON (3-076-631-01) into the desired length and use it.

COVER

5. REPAIR PARTS LIST

5-1-6. CABINET (L) SECTION

ns : not supplied



Ref. No.	Part No.	Description
251	3-078-890-01	SCREW, TAPPING
252	A-7078-811-A	FP-609 BOARD, COMPLETE (DVD200/DVD200E)
252	A-7078-821-A	FP-609 (35) BOARD, COMPLETE (DVD300)
253	3-084-664-01	SHEET METAL, PWB RETAINER
254	X-3953-601-3	CABINET (L) ASSY
255	X-3953-598-2	FRAME ASSY, EJECT
256	3-068-457-01	SHAFT, STRAP
257	3-973-497-91	SCREW (M1.7), 0-NO. +P 2
258	3-080-204-01	SCREW, TAPPING, P2
259	X-3953-599-1	HINGE ASSY, D LID

Ref. No.	Part No.	Description
260	3-087-322-01	SCREW (M1.7), EG GRIP, P2
261	3-084-764-01	COVER, D LID
262	3-084-737-01	CLAW, LID LOCK
263	3-084-771-01	BELT, GRIP
264	A-7078-800-A	FP-608 BOARD, COMPLETE (DVD200/DVD200E)
264	A-7078-823-A	FP-608 (35) BOARD, COMPLETE (DVD300)
265	CAUTION	TAPE (0716)
266	1-477-795-11	SWITCH BLOCK, CONTROL (PS-CX5500)
267	3-080-204-21	SCREW, TAPPING, P2
268	3-084-645-01	COVER (L), JACK

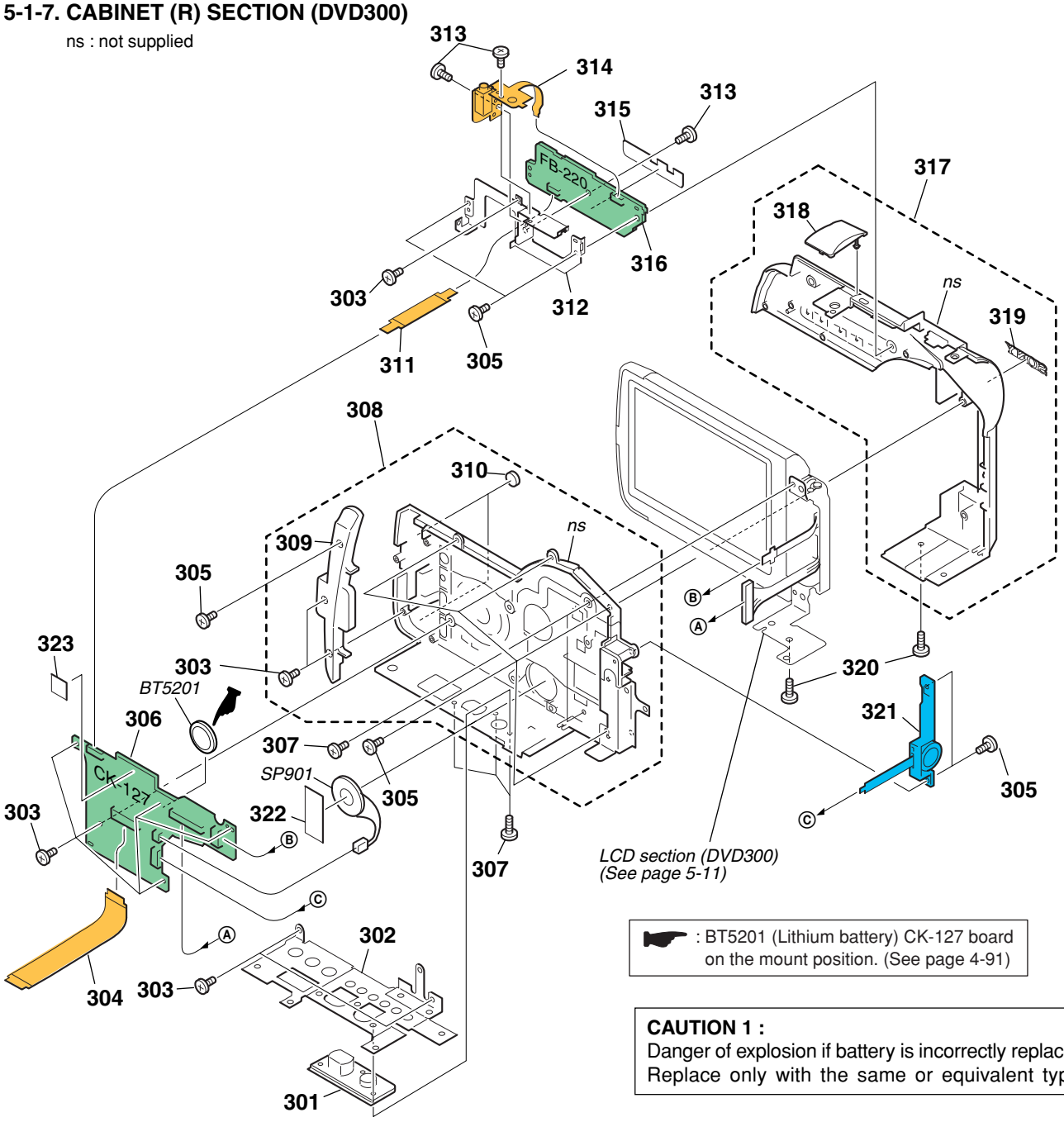
CAUTION :
For the parts of 265 : TAPE (0716) (3-084-668-01) cut WOVEN (T0.25), FABRIC NON (3-076-631-01) into the desired length and use it.

COVER

5. REPAIR PARTS LIST

5-1-7. CABINET (R) SECTION (DVD300)

ns : not supplied



: BT5201 (Lithium battery) CK-127 board on the mount position. (See page 4-91)

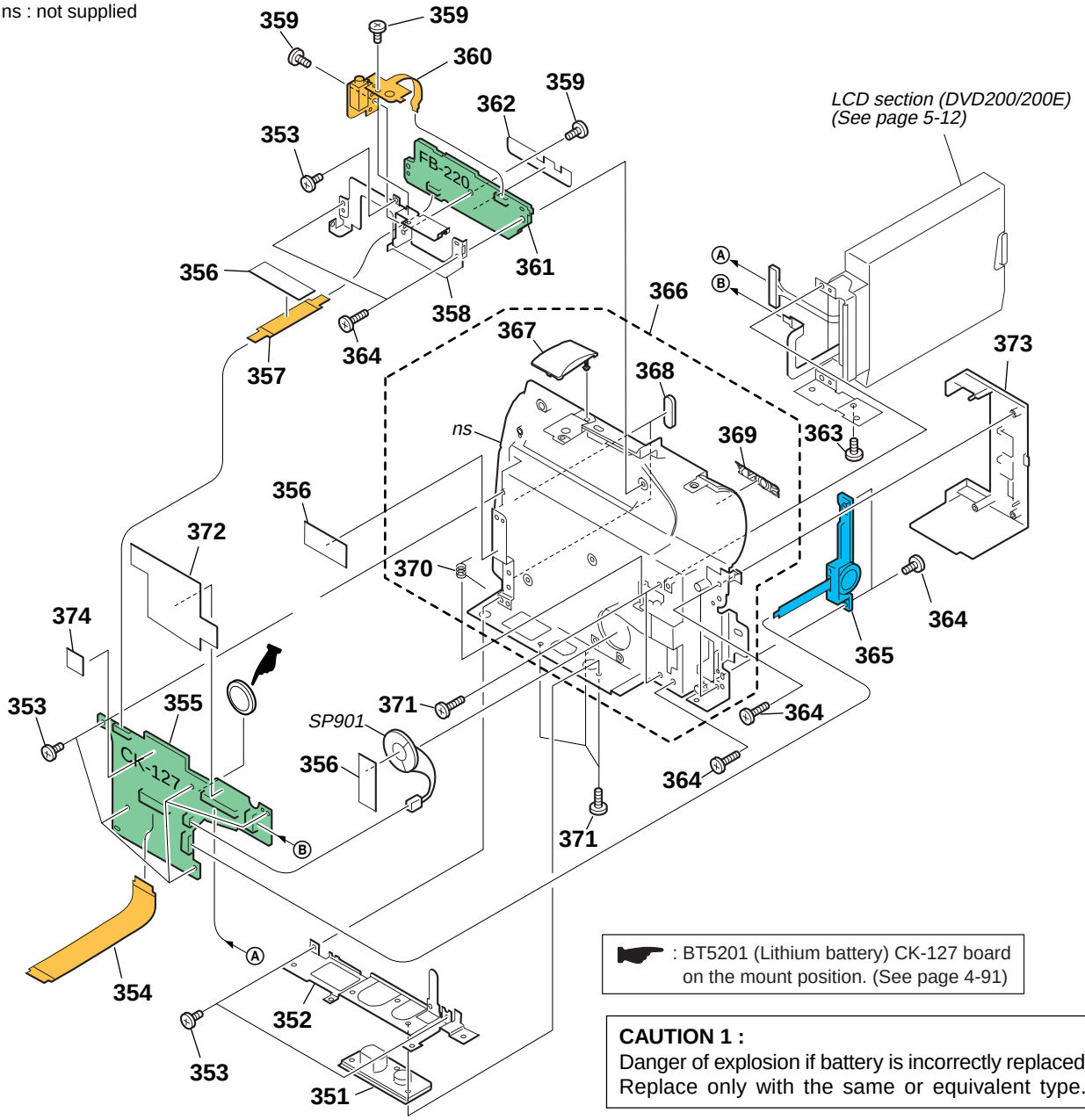
CAUTION 1 :
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

Ref. No.	Part No.	Description
301	3-055-257-11	TRIPOD (LARGE)
302	3-084-804-01	FRAME, TRIPOD LARGE
303	3-078-890-01	SCREW, TAPPING
304	1-688-707-11	FP-602 FLEXIBLE BOARD
305	3-080-204-21	SCREW, TAPPING, P2
306	A-7078-819-A	CK-127 (35) BOARD, COMPLETE
307	3-084-817-31	GRIP
308	X-3953-616-1	CABINET (R) (35) ASSY
309	3-084-801-01	LOCK, PANEL
310	3-959-978-02	CUSHION, PANEL
311	1-688-712-11	FP-607 FLEXIBLE BOARD
312	3-084-697-01	SHEET METAL, FB RETAINER
313	3-078-889-11	SCREW (M1.7)
314	A-7078-824-A	FP-610 (35) BOARD, COMPLETE
315	3-085-252-01	SHEET, FB MUFFLE
316	A-7078-808-A	FB-220 BOARD, COMPLETE
317	X-3953-617-1	CABINET (35) ASSY, SIDE
318	3-084-693-01	COVER (U), JACK
319	4-942-636-01	EMBLEM (NO.3.5), SONY
320	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
321	1-477-796-11	SWITCH BLOCK, CONTROL (KP-CX5500)
322	CAUTION 2	TAPE (0716)
323	3-085-070-01	CD INSULATING SHEET
SP901	1-825-260-21	LOUD SPEAKER (1.6CM)

CAUTION 2 :
For the parts of 322 : TAPE (0716) (3-084-668-01) cut WOVEN (T0.25), FABRIC NON (3-076-631-01) into the desired length and use it.

5-1-8. CABINET (R) SECTION (DVD200/DVD200E)

ns : not supplied



: BT5201 (Lithium battery) CK-127 board on the mount position. (See page 4-91)

CAUTION 1 :
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

Ref. No.	Part No.	Description
351	3-055-257-11	TRIPOD (LARGE)
352	X-3953-607-1	FRAME (25) ASSY, BOTTOM
353	3-078-890-01	SCREW, TAPPING
354	1-688-707-11	FP-602 FLEXIBLE BOARD
355	A-7078-807-A	CK-127 (25) BOARD, COMPLETE
356	CAUTION 2	TAPE (0716)
357	1-688-712-11	FP-607 FLEXIBLE BOARD
358	3-084-697-01	SHEET METAL, FB RETAINER
359	3-078-889-11	SCREW (M1.7)
360	A-7078-809-A	FP-610 BOARD, COMPLETE
361	A-7078-808-A	FB-220 BOARD, COMPLETE
362	3-085-252-01	SHEET, FB MUFFLE
363	3-080-198-31	SCREW(M1.7),LOCK ACE,P2

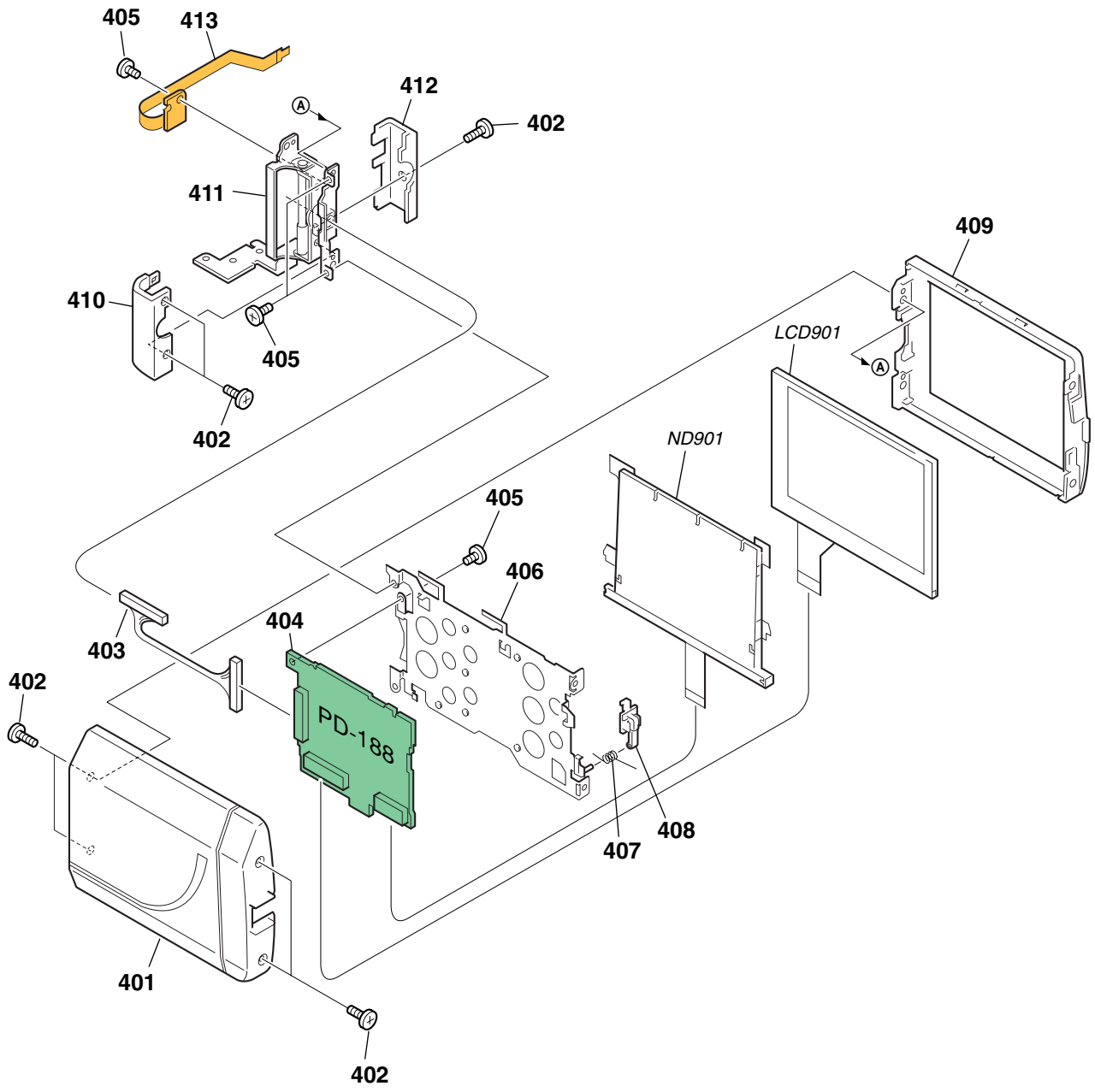
Ref. No.	Part No.	Description
364	3-080-204-21	SCREW, TAPPING, P2
365	1-477-796-11	SWITCH BLOCK, CONTROL (KP-CX5500)
366	X-3953-612-1	CABINET (R) (25M) ASSY (DVD200)
366	X-3953-639-1	CABINET (R) (25M) ASSY (DVD200E)
367	3-084-693-01	COVER (U), JACK
368	3-084-706-01	CUSHION (25), PANEL
369	4-942-636-01	EMBLEM (NO.3.5), SONY
370	3-084-696-01	SPRING, HINGE BLIND
371	3-084-817-31	GRIP
372	CAUTION 2	TAPE (HS)
373	X-3953-606-1	CABINET (25) ASSY, SIDE
374	3-085-070-01	SHEET, INSULATING , CD
SP901	1-825-260-21	LOUD SPEAKER (1.6CM)

CAUTION 2 :
For the parts of 356 : TAPE (0716) (3-084-668-01) and 372 : TAPE (HS) (3-084-810-01) cut WOVEN (T0.25), FABRIC NON (3-076-631-01) into the desired length and use it.

COVER

5. REPAIR PARTS LIST

5-1-9. LCD SECTION (DVD300)



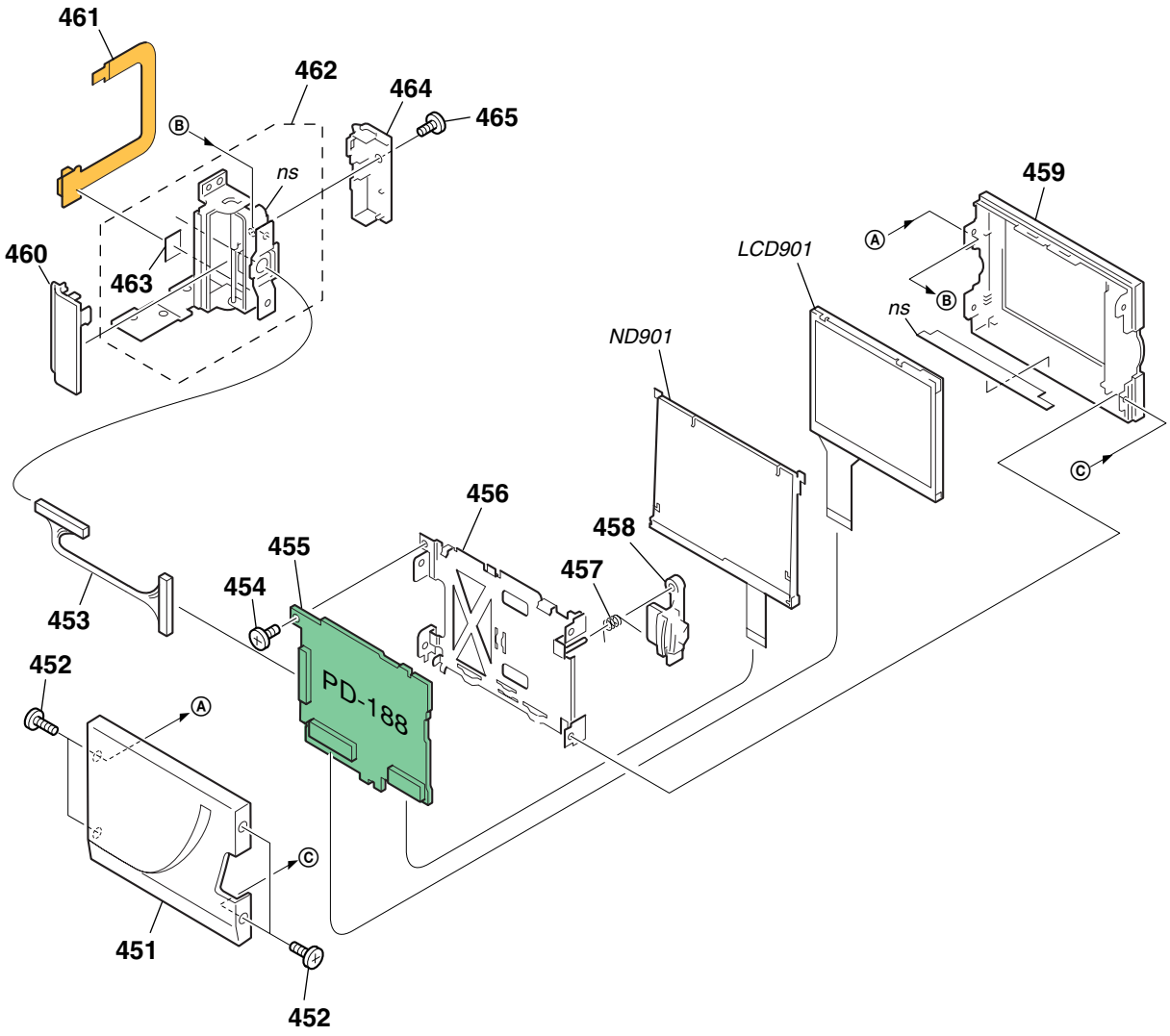
Ref. No.	Part No.	Description
401	X-3953-618-1	CABINET (C) (35) ASSY, P
402	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
403	1-962-365-12	HARNESS (PV-019)
404	A-7078-818-A	PD-188 (35) BOARD, COMPLETE
405	3-078-889-11	SCREW (M1.7)
406	X-3953-614-1	FRAME (35) ASSY, P
407	3-084-919-01	SPRING (OPEN), TORSION
408	3-084-795-01	BUTTON, OPEN

Ref. No.	Part No.	Description
409	3-083-281-01	CABINET (M) (35), P
410	3-083-282-01	COVER (O) (35), HINGE
411	X-3953-615-1	HINGE (35) ASSY, LCD
412	3-083-283-01	COVER (U) (35), HINGE
413	A-7078-820-A	FP-613 BOARD, COMPLETE
LCD901	8-753-051-00	ACX310AK-J
⚠ND901	1-477-758-11	BLOCK LIGHT GUIDE PLATE (3.5)

Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

5-1-10. LCD SECTION (DVD200)

ns : not supplied



Ref. No.	Part No.	Description
451	X-3953-610-1	CABINET (C) (25M) ASSY, P
452	3-087-322-01	SCREW (M1.7), EG GRIP, P2
453	1-962-364-12	HARNESS (PV-018)
454	3-078-889-11	SCREW (M1.7)
455	A-7078-799-A	PD-188 (25) BOARD, COMPLETE
456	X-3953-594-1	FRAME (25) ASSY, P
457	3-084-782-01	SPRING, P LOCK
458	3-084-785-01	BUTTON, P LOCK
459	3-083-291-01	CABINET (M) (25), P

Ref. No.	Part No.	Description
460	3-083-293-01	COVER (O) (25), HINGE
461	A-7078-810-A	FP-612 BOARD, COMPLETE
462	X-3953-595-1	HINGE (25) ASSY, LCD
463	3-084-710-01	SHEET, ADHESIVE, PR
464	3-083-294-01	COVER (U) (25), HINGE
465	3-973-497-91	SCREW (M1.7), 0-NO. +P 2
LCD901	8-753-052-14	ACX307AKA-J
⚠ND901	1-477-756-31	BLOCK LIGHT GUIDE PLATE (2.5)

Exploded view and parts list of MD-097 BLOCK are not shown. Page 5-13 and 5-14 are not shown.

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

5-2. ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description			
	A-7078-816-A	CD-429 (MEGA) BOARD, COMPLETE			
		**********			
		(IC5101 is not included in this complete board.)			
		< CAPACITOR >			
C5101	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5102	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5103	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5105	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5106	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5108	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5110	1-113-987-11	TANTAL. CHIP	4.7uF	20%	25V
C5111	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C5112	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5113	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5114	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
C5116	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		< CONNECTOR >			
CN5101	1-784-421-11	CONNECTOR, FFC/FPC (ZIF) 27P			
CN5102	1-794-375-21	PIN, CONNECTOR 2P			
		< FERRITE BEAD >			
FB5101	1-414-445-11	FERRITE	0uH		
FB5102	1-414-554-21	FERRITE	0uH		
		< IC >			
IC5101	A-7111-336-A	IC CCD BLOCK ASSY (CCD IMAGER)			
IC5102	6-701-755-01	IC AD80017AJRURL			
		< COIL >			
L5101	1-469-528-91	INDUCTOR	100uH		
L5102	1-469-525-91	INDUCTOR	10uH		
		< TRANSISTOR >			
Q5101	6-550-119-01	TRANSISTOR	DTC144EMT2L		
		< RESISTOR >			
R5101	1-218-990-11	SHORT CHIP	0		
R5102	1-218-990-11	SHORT CHIP	0		
R5105	1-218-941-81	RES-CHIP	100	5%	1/16W
R5106	1-218-941-81	RES-CHIP	100	5%	1/16W
	A-7078-807-A	CK-127 (25) BOARD, COMPLETE (DVD200/DVD200E)			
	A-7078-819-A	CK-127 (35) BOARD, COMPLETE (DVD300)			
		**********			
		< BATTERY >			
⚠BT5201	1-756-128-11	BATTERY, LITHIUM (SECONDARY)			

Ref. No.	Part No.	Description			
		< CONNECTOR >			
CN5201	1-784-423-21	CONNECTOR, FFC/FPC (ZIF) 39P			
CN5202	1-794-997-11	PIN, CONNECTOR 20P			
CN5203	1-778-506-21	PIN, CONNECTOR (PC BOARD) 2P			
CN5204	1-691-344-11	CONNECTOR, FFC/FPC (ZIF) 6P (DVD200/DVD200E)			
CN5205	1-766-336-21	CONNECTOR, FFC/FPC 6P			
CN5206	1-766-336-21	CONNECTOR, FFC/FPC 6P			
CN5207	1-691-344-11	CONNECTOR, FFC/FPC (ZIF) 6P (DVD300)			
		< DIODE >			
D5203	8-719-062-16	DIODE 01ZA8.2(TPL3)			
D5204	8-719-062-16	DIODE 01ZA8.2(TPL3)			
D5205	8-719-062-16	DIODE 01ZA8.2(TPL3)			
D5207	8-719-062-16	DIODE 01ZA8.2(TPL3)			
D5208	8-719-056-85	DIODE UDZSTE-178.2B			
D5209	8-719-062-16	DIODE 01ZA8.2(TPL3)			
		< RESISTOR >			
R5201	1-218-990-11	SHORT CHIP	0		
R5204	1-218-953-11	RES-CHIP	1K	5%	1/16W
R5206	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R5207	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R5208	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R5210	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R5211	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R5212	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R5215	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R5218	1-218-960-11	RES-CHIP	3.9K	5%	1/16W
R5222	1-218-964-11	RES-CHIP	8.2K	5%	1/16W
R5223	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R5224	1-218-960-11	RES-CHIP	3.9K	5%	1/16W
R5225	1-218-964-11	RES-CHIP	8.2K	5%	1/16W
R5226	1-218-990-11	SHORT CHIP	0		
R5227	1-218-949-11	RES-CHIP	470	5%	1/16W
		< SWITCH >			
S5201	1-786-157-11	SWITCH, TACTILE (EDIT)			
S5203	1-786-157-11	SWITCH, TACTILE (RESET)			
S5204	1-786-157-11	SWITCH, TACTILE (VOL+)			
S5205	1-786-157-11	SWITCH, TACTILE (VOL-)			
S5206	1-786-157-11	SWITCH, TACTILE (DISPLAY/BATT INFO)			
S5207	1-762-805-21	SWITCH, PUSH (1 KEY) (PANEL_CLOSE) (DVD200/DVD200E)			
S5208	1-762-805-21	SWITCH, PUSH (1 KEY) (PANEL_CLOSE) (DVD300)			
S5209	1-786-157-11	SWITCH, TACTILE (VISUAL INDEX)			
S5210	1-786-157-11	SWITCH, TACTILE (SETUP)			
S5211	1-786-157-11	SWITCH, TACTILE (REC ●)			
S5212	1-786-157-11	SWITCH, TACTILE (▲ UP)			
S5213	1-786-157-11	SWITCH, TACTILE (◀ LEFT)			
S5214	1-786-157-31	TACTILE SWITCH (ENTER)			
S5215	1-786-157-11	SWITCH, TACTILE (▶ RIGHT)			
S5216	1-786-157-11	SWITCH, TACTILE (▼ DOWN)			

Be sure to read “Precautions upon replacing CCD imager” on page 4-11 when changing the CCD imager.

CAUTION :
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note :
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

FB-220 **FP-608** **FP-609** **FP-610** **FP-611** **FP-612** **FP-613**

Ref. No.	Part No.	Description			
	A-7078-808-A	FB-220 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C5301	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< CONNECTOR >			
CN5301	1-691-344-11	CONNECTOR, FFC/FPC (ZIF) 6P			
CN5302	1-691-344-11	CONNECTOR, FFC/FPC (ZIF) 6P			
		< DIODE >			
D5301	8-719-062-16	DIODE 01ZA8.2(TPL3)			
		< RESISTOR >			
R5301	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R5302	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R5303	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R5304	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R5305	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R5306	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R5308	1-218-960-11	RES-CHIP	3.9K	5%	1/16W
R5309	1-216-864-11	METAL CHIP	0	5%	1/16W
R5310	1-216-864-11	METAL CHIP	0	5%	1/16W
		< SWITCH >			
S5301	1-786-157-11	SWITCH, TACTILE (BACK LIGHT)			
S5302	1-786-157-11	SWITCH, TACTILE (■ STOP)			
S5303	1-786-157-11	SWITCH, TACTILE (FADER)			
S5304	1-786-157-11	SWITCH, TACTILE (⏮ PREV)			
S5305	1-786-157-11	SWITCH, TACTILE (REVIEW)			
S5306	1-786-157-11	SWITCH, TACTILE (▶ PLAY(PLAYBACK))			
S5308	1-786-157-11	SWITCH, TACTILE (⏭ NEXT)			
S5310	1-786-157-11	SWITCH, TACTILE (⏸ PAUSE)			
		< VARISTOR >			
VD5301	1-801-862-11	VARISTOR, CHIP (1608)			
VD5302	1-801-862-11	VARISTOR, CHIP (1608)			
	A-7078-800-A	FP-608 BOARD, COMPLETE (DVD200/DVD200E)			
	A-7078-823-A	FP-608 (35) BOARD, COMPLETE (DVD300)			
		**********			
		< CONNECTOR >			
CN9001	1-794-962-11	CONNECTOR, SQUARE TYPE(USB 5P)			
		< JACK >			
J9001	1-793-995-21	JACK, SUPER SMALL TYPE ((LANC))			
		< RESISTOR >			
R9002	1-216-864-11	METAL CHIP	0	5%	1/16W
R9003	1-216-296-11	SHORT CHIP	0		
	A-7078-811-A	FP-609 BOARD, COMPLETE (DVD200/DVD200E)			
	A-7078-821-A	FP-609 (35) BOARD, COMPLETE (DVD300)			
		**********			
		< DIODE >			
D9051	8-719-073-33	DIODE CL-165HR/YG-D-T			
		< RESISTOR >			
R9051	1-216-809-11	METAL CHIP	100	5%	1/16W
R9052	1-216-816-11	METAL CHIP	390	5%	1/16W
		< RELAY >			
RY9051	1-454-583-11	SOLENOID, PLUNGER			
		< SWITCH >			
S9051	1-762-805-21	SWITCH, PUSH (1KEY) (LID OPEN)			
S9052	1-786-179-31	SWITCH, PUSH (1KEY) (LID OPEN)			
S9053	1-786-180-31	SWITCH, PUSH (1KEY) (OPEN)			
	A-7078-809-A	FP-610 BOARD, COMPLETE (DVD200/DVD200E)			
	A-7078-824-A	FP-610 (35) BOARD, COMPLETE (DVD300)			
		**********			
		< FERRITE BEAD >			
FB9101	1-500-444-11	FERRITE	0uH		
FB9102	1-500-444-11	FERRITE	0uH		
		< JACK >			
J9101	1-691-737-41	JACK (SMALL TYPE) (MIC (PLUG IN POWER))			
		< SWITCH >			
S9101	1-786-157-11	SWITCH, TACTILE (SUPER NS/COLOR SLOW S)			
	A-7078-812-A	FP-611 BOARD, COMPLETE (DVD200/DVD200E)			
	A-7078-822-A	FP-611 (35) BOARD, COMPLETE (DVD300)			
		**********			
		< DIODE >			
D9151	8-719-062-16	DIODE 01ZA8.2(TPL3)			
D9152	8-719-062-16	DIODE 01ZA8.2(TPL3)			
		< FERRITE BEAD >			
FB9151	1-500-444-11	FERRITE	0uH		
FB9152	1-500-444-11	FERRITE	0uH		
FB9153	1-500-444-11	FERRITE	0uH		
		< JACK >			
J9151	1-778-040-11	JACK, SMALL TYPE (AUDIO/VIDEO)			
	A-7078-810-A	FP-612 BOARD, COMPLETE (DVD200/DVD200E)			
		**********			
		< SWITCH >			
S9201	1-771-338-31	SWITCH, PUSH (PANEL REVERSE)			
	A-7078-820-A	FP-613 BOARD, COMPLETE (DVD300)			
		**********			
S9251	1-771-039-31	SWITCH, PUSH (PANEL REVERSE)			

Ref. No.	Part No.	Description			
	A-7078-802-A	LB-084 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C5601	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5602	1-164-505-11	CERAMIC CHIP	2.2uF		16V
		< CONNECTOR >			
CN5601	1-779-334-11	CONNECTOR, FFC/FPC 20P			
CN5602	1-691-354-21	CONNECTOR, FFC/FPC (ZIF) 16P			
		< DIODE >			
D5602	6-500-375-01	DIODE NSCW455T-TC9			
		< IC >			
IC5601	8-759-581-11	IC NJM2125F(TE2)			
		< TRANSISTOR >			
Q5602	8-729-054-48	TRANSISTOR	N1B04FE-Y/GR(TPLR3)		
		< RESISTOR >			
R5603	1-208-941-11	METAL CHIP	180K	0.5%	1/16W
R5604	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R5605	1-218-956-11	RES-CHIP	1.8K	5%	1/16W
R5606	1-216-839-11	METAL CHIP	33K	5%	1/16W
R5607	1-211-983-11	METAL CHIP	39	0.5%	1/10W
	A-7078-801-A	MA-420 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C5503	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
		< CONNECTOR >			
CN5501	1-778-507-21	PIN, CONNECTOR (PC BOARD) 4P			
CN5503	1-764-529-11	CONNECTOR, FFC/FPC (ZIF) 22P			
		< DIODE >			
D5501	8-719-056-85	DIODE UDZSTE-178.2B			
D5503	6-500-512-01	DIODE CL-330IRS-X-TU			
D5504	8-719-073-01	DIODE MA111-(K8).S0			
D5507	8-719-064-07	DIODE SML-310LTT86			
		< FERRITE BEAD >			
FB5501	1-469-179-21	FERRITE	0uH		
FB5502	1-469-179-21	FERRITE	0uH		
FB5503	1-469-179-21	FERRITE	0uH		
FB5504	1-469-179-21	FERRITE	0uH		
		< IC >			
IC5501	8-742-221-00	HYB IC SBX3055-01			
		< JACK >			
J5501	1-778-518-11	CONNECTOR, EXTERNAL (S VIDEO)			

Ref. No.	Part No.	Description			
		< RESISTOR >			
R5501	1-216-864-11	METAL CHIP	0	5%	1/16W
R5502	1-216-864-11	METAL CHIP	0	5%	1/16W
R5503	1-216-864-11	METAL CHIP	0	5%	1/16W
R5504	1-216-805-11	METAL CHIP	47	5%	1/16W
R5505	1-216-864-11	METAL CHIP	0	5%	1/16W
R5506	1-218-951-11	RES-CHIP	680	5%	1/16W
R5507	1-216-864-11	METAL CHIP	0	5%	1/16W
R5508	1-218-990-11	SHORT CHIP	0		
		< SENSOR >			
SE5501	1-476-807-31	SENSOR, ANGULAR VELOCITY (YAW)			
SE5502	1-476-807-41	SENSOR, ANGULAR VELOCITY (PITCH)			
		< VARISTOR >			
VD5501	1-803-974-21	VARISTOR, CHIP (1608)			
VD5502	1-803-974-21	VARISTOR, CHIP (1608)			
	A-7078-799-A	PD-188 (25) BOARD, COMPLETE (DVD200/DVD200E)			
	A-7078-818-A	PD-188 (35) BOARD, COMPLETE (DVD300)			
		**********			
		< CAPACITOR >			
C6001	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6002	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C6003	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C6004	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C6005	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C6007	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6008	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C6009	1-135-177-21	TANTALUM CHIP	1uF	20%	20V
C6010	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C6011	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
C6012	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6013	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C6014	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C6015	1-164-870-11	CERAMIC CHIP	68PF	5%	50V (DVD200/DVD200E)
C6015	1-164-874-11	CERAMIC CHIP	100PF	5%	50V (DVD300)
C6016	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C6017	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C6018	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C6019	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C6022	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6023	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C6024	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C6101	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C6103	1-164-657-11	CERAMIC CHIP	0.015uF	10%	50V
C6104	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
⚠C6105	1-100-371-11	CERAMIC CHIP	12PF	5%	3.15KV

Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note :
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			
		< CONNECTOR >			
CN6001	1-815-031-11	CONNECTOR, FFC/FPC (ZIF) 24P			
CN6101	1-764-709-11	CONNECTOR, FFC/FPC (LIF) 10P			
CN6201	1-794-997-11	PIN, CONNECTOR 20P			
		< DIODE >			
D6001	8-719-084-47	DIODE 1SV290(TPL3)			
D6003	8-719-050-42	DIODE RD3.3UM-T1B			
D6103	8-719-073-01	DIODE MA111-(K8).S0			
D6104	8-719-059-47	DIODE PG1111R-TR			
		< FERRITE BEAD >			
FB6001	1-414-760-21	FERRITE 0uH			
FB6002	1-414-760-21	FERRITE 0uH			
		< IC >			
IC6001	8-752-109-08	IC CXA3289BR-T4			
IC6002	8-752-407-33	IC CXD3512R-T4 (DVD200)			
IC6002	8-752-409-15	IC CXD3516R-T4 (DVD300)			
IC6101	8-759-564-49	IC TC7W53FU(TE12R)			
IC6102	8-759-075-70	IC TA75S393F-TE85R			
		< COIL >			
L6001	1-469-525-91	INDUCTOR 10uH			
L6002	1-412-949-21	INDUCTOR 6.8uH			
L6101	1-428-878-11	INDUCTOR 82uH			
		< TRANSISTOR >			
Q6001	8-729-054-48	TRANSISTOR N1B04FE-Y/GR(TPLR3)			
Q6002	8-729-054-48	TRANSISTOR N1B04FE-Y/GR(TPLR3)			
Q6003	6-550-234-01	TRANSISTOR UNR32A300LS0			
Q6004	6-550-232-01	TRANSISTOR 2SA207800LS0			
Q6005	6-550-232-01	TRANSISTOR 2SA207800LS0			
Q6101	6-550-234-01	TRANSISTOR UNR32A300LS0			
Q6102	6-550-065-01	TRANSISTOR CPH5504-TL-E			
Q6104	8-729-054-48	TRANSISTOR RN4983FE(TPLR3)			
		< RESISTOR >			
R6001	1-208-931-11	METAL CHIP	68K	0.5%	1/16W
R6002	1-218-985-11	RES-CHIP	470K	5%	1/16W
R6003	1-218-953-11	RES-CHIP	1K	5%	1/16W
R6004	1-218-953-11	RES-CHIP	1K	5%	1/16W
R6006	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
R6007	1-218-973-11	RES-CHIP	47K	5%	1/16W
R6008	1-218-973-11	RES-CHIP	47K	5%	1/16W
R6009	1-218-975-11	RES-CHIP	68K	5%	1/16W
R6010	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6011	1-218-975-11	RES-CHIP	68K	5%	1/16W
R6012	1-218-989-11	RES-CHIP	1M	5%	1/16W
R6013	1-218-977-11	RES-CHIP	100K	5%	1/16W
R6014	1-218-965-11	RES-CHIP	10K	5%	1/16W
R6015	1-218-965-11	RES-CHIP	10K	5%	1/16W
R6016	1-218-953-11	RES-CHIP	1K	5%	1/16W
R6017	1-218-973-11	RES-CHIP	47K	5%	1/16W
R6018	1-218-966-11	RES-CHIP	12K	5%	1/16W
R6019	1-218-989-11	RES-CHIP	1M	5%	1/16W
R6020	1-218-975-11	RES-CHIP	68K	5%	1/16W
R6021	1-218-979-11	RES-CHIP	150K	5%	1/16W

Ref. No.	Part No.	Description			
R6022	1-208-957-11	RES-CHIP	820K	5%	1/16W
R6023	1-218-990-11	SHORT CHIP	0		
R6103	1-218-965-11	RES-CHIP	10K	5%	1/16W
R6104	1-218-980-11	RES-CHIP	180K	5%	1/16W
R6105	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6106	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R6107	1-218-965-11	RES-CHIP	10K	5%	1/16W (DVD200/DVD200E)
R6107	1-218-970-11	RES-CHIP	27K	5%	1/16W (DVD300)
R6108	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6109	1-218-941-81	RES-CHIP	100	5%	1/16W
R6110	1-218-949-11	RES-CHIP	470	5%	1/16W
		< COMPOSITION CIRCUIT BLOCK >			
RB6001	1-234-372-21	RES, NETWORK 100X4 (1005)			
		< TRANSFORMER >			
⚠T6101	1-435-786-31	TRANSFORMER, INVERTER (DVD200/DVD200E)			
⚠T6101	1-437-472-11	TRANSFORMER, INVERTER (DVD300)			
	A-7078-804-A	MD-097 BOARD, COMPLETE (Note1)			
		**********			
	A-7078-805-A	SS-174T BOARD, COMPLETE			
		**********			
	A-7078-815-A	VC-310 (MEGA) BOARD, COMPLETE (SERVICE) (DVD200/DVD300)			
	A-7111-388-A	VC-310 (MEGA P) BOARD, COMPLETE (SERVICE) (DVD200E)			
		**********			

Electrical parts list of the MD-097, SS-174T, and VC-310 board are not shown. Pages from 5-19 to 5-34 are not shown.

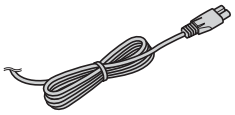
Note1 :
Since a service is provided only for the MD-097 BLOCK ASSY (A-7111-651-A) and not for the single MD-097 board, complete.

Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

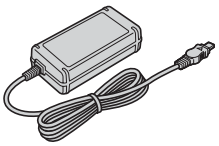
Note :
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Checking supplied accessories.

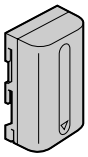
Make sure that the following accessories are supplied with your camcorder.



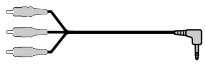
Power cord (Main lead)(1)
(AEP, EE, E model)
⚠ 1-769-608-11
Power cord (Main lead)(1)
(AUS model)
⚠ 1-696-819-21
Power cord (Main lead)(1)
(KR model)
⚠ 1-776-985-11
Power cord (Main lead)(1)
(UK, HK model)
⚠ 1-783-374-11
Power cord (Main lead)(1)
(US, CND model)
⚠ 1-790-107-22



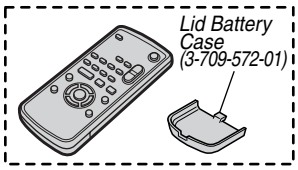
AC power adaptor (1) (AC-L15A)
⚠ 1-477-533-32



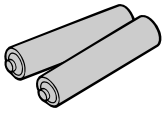
NP-FM50 battery pack (1)
(not supplied)



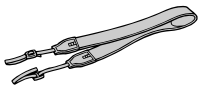
A/V connecting cable
(1.5m) (1)
1-824-097-11



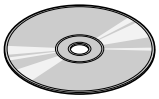
Wireless Remote Commander (1)
(RMT-820)
1-477-868-21



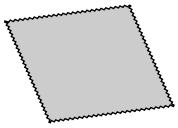
R6 (size AA) batteries
for the Remote
Commander (2)
(not supplied)



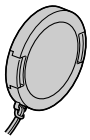
Shoulder strap (1)
3-987-015-01



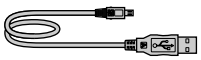
CD-ROM
(SPVD-011 (I) USB Driver) (1)
(US, CND model)
3-086-131-01
CD-ROM
(SPVD-011 USB Driver) (1)
(AEP, UK, EE, E, HK,
KR, AUS model)
3-086-132-01



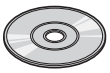
Cleaning cloth (1)
3-073-861-01



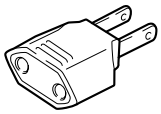
Lens cap (1)
X-3953-658-1



USB cable (1)
1-823-930-11



DVD-R (DMR30) (1)
(not supplied)



2-pin conversion adaptor (1)
(E, HK model)
1-569-008-12

21-pin conversion connector (1)
(AEP, UK, EE model)
1-770-783-21

• Abbreviation

CND : Canadian model	AUS : Australian model
EE : East European model	KR : Korea model
HK : Hong Kong model	

Other accessories

3-081-300-13 MANUAL, INSTRUCTION (ENGLISH) (DVD200:US,CND,E/DVD300)
3-081-300-21 MANUAL, INSTRUCTION (FRENCH)(DVD200:CND)
3-081-300-31 MANUAL, INSTRUCTION (SPANISH/PORTUGUESE) (DVD200:E)
3-081-300-41 MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (DVD200:E)
3-081-300-51 MANUAL, INSTRUCTION (KOREAN)(DVD200:KR)
3-081-300-61 MANUAL, INSTRUCTION (ARABIC)(DVD200:E)
3-081-302-11 MANUAL, INSTRUCTION (ENGLISH/FRENCH) (DVD200E:AEP,UK,E,HK,AUS)
3-081-302-21 MANUAL, INSTRUCTION (SPANISH/PORTUGUESE) (DVD200E:AEP)
3-081-302-31 MANUAL, INSTRUCTION (ITALIAN/GREEK) (DVD200E:AEP)
3-081-302-41 MANUAL, INSTRUCTION (GERMAN/DUTCH) (DVD200E:AEP)
3-081-302-51 MANUAL, INSTRUCTION (SWEDISH/RUSSIAN) (DVD200E:E)
3-081-302-61 MANUAL, INSTRUCTION (ARABIC/PERSIAN) (DVD200E:E)
3-081-302-71 MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (DVD200E:HK)
3-081-302-81 MANUAL, INSTRUCTION (SIMPLIFIED CHINESE) (DVD200E:E)

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

9-876-274-31

Sony EMCS Co.

2003L1600-1
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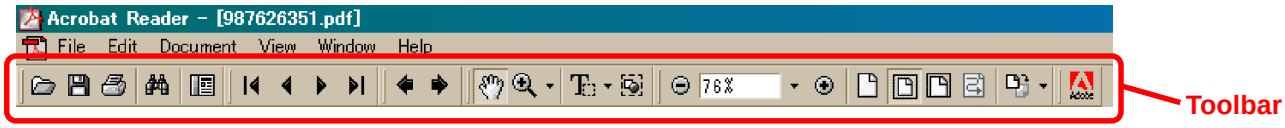
COVER

[Description of main button functions on toolbar of the Adobe Acrobat Reader Ver5.0 (for Windows)]



Printing a text

1. Click the Print button .
2. Specify a printer, print range, number of copies, and other options, and then click [OK].

Application of printing:
To set a range to be printed within a page, select the graphic selection tool and drag on the page to enclose a range to be printed, and then click the Print button.

Finding a text

1. Click the Find button .
2. Enter a character string to be found into a text box, and click the [Find]. (Specify the find options as necessary)
3. Open the find dialog box again, and click the [Find Again] and you can find the matched character strings displayed next. (Character strings entered previously are displayed as they are in the text box.)

Application to the Service Manual:
The parts on the drawing pages (block diagrams, circuit diagrams, printed circuit boards) and parts list pages in a text can be found using this find function. For example, find a Ref. No. of IC on the block diagram, and click the [Find Again] continuously, so that you can move to the Ref. No. of IC on the circuit diagram or printed circuit board diagram successively.
Note: The find function may not be applied to the Service Manual depending on the date of issue.

Switching a page

- To move to the first page, click the .
- To move to the last page, click the .
- To move to the previous page, click the .
- To move to the next page, click the .

Reversing the screens displayed once

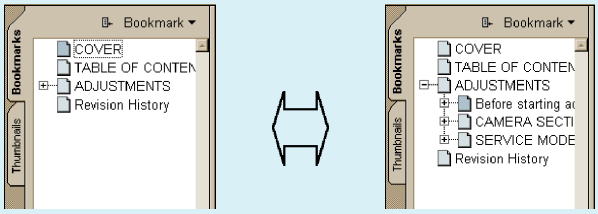
- To reverse the previous screens (operation) one by one, click the .
- To advance the reversed screens (operation) one by one, click the .

Application to the Service Manual:
This function allows you to go and back between circuit diagram and printed circuit board diagram, and accordingly it will be convenient for the voltage check.

Moving with link

1. Select either palm tool , zoom tool , text selection tool , or graphic selection tool .
2. Place the pointer in the position in a text where the link exists (such as a button on cover and the table of contents page, or blue characters on the removal flowchart page or drawing page), and the pointer will change to the forefinger form .
3. Then, click the link. (You will go to the link destination.)

Moving with bookmark:
Click an item (text) on the bookmark pallet, and you can move to the link destination. Also, clicking can display the hidden items.
(To go back to original state, click)



Zooming or rotating the screen display

"Zoom in"

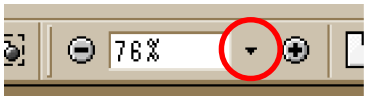
- Select the zoom tool and click the page.
- Select the zoom tool and drag a range to be zoomed in.

"Zoom out"

- Select the zoom-out tool and click the page.
- Select the zoom-out tool and drag a range to be zoomed out.

"Zoom in/out"

- Click the triangle button in the zoom control box to select the display magnification. Or, you may click or for zooming in or out.



"Rotate"

- Click rotate tool , and the page then rotates 90 degrees each.

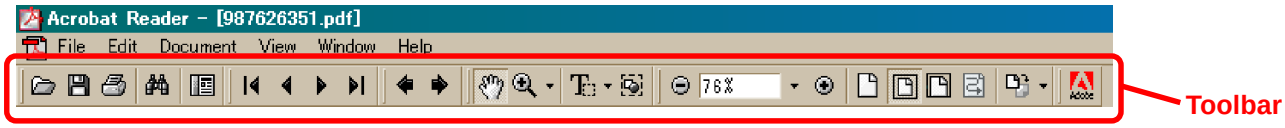
Application to the Service Manual:
The printed circuit board diagram you see now can be changed to the same direction as the set.

Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2003.08	Official Release	—	—
1.1	2003.12	Correction-1	Correction of the schematic diagrams, printed wiring boards, waveforms, repair parts list. S.M. correction: Page 4-13, 4-15, 4-92, 5-3, 5-7, 5-10, 5-18	Yes

COVER

[Description of main button functions on toolbar of the Adobe Acrobat Reader Ver5.0 (for Windows)]



Printing a text

1. Click the Print button .
2. Specify a printer, print range, number of copies, and other options, and then click [OK].

Application of printing:
To set a range to be printed within a page, select the graphic selection tool and drag on the page to enclose a range to be printed, and then click the Print button.

Finding a text

1. Click the Find button .
2. Enter a character string to be found into a text box, and click the [Find]. (Specify the find options as necessary)
3. Open the find dialog box again, and click the [Find Again] and you can find the matched character strings displayed next. (Character strings entered previously are displayed as they are in the text box.)

Application to the Service Manual:
The parts on the drawing pages (block diagrams, circuit diagrams, printed circuit boards) and parts list pages in a text can be found using this find function. For example, find a Ref. No. of IC on the block diagram, and click the [Find Again] continuously, so that you can move to the Ref. No. of IC on the circuit diagram or printed circuit board diagram successively.
Note: The find function may not be applied to the Service Manual depending on the date of issue.

Switching a page

- To move to the first page, click the .
- To move to the last page, click the .
- To move to the previous page, click the .
- To move to the next page, click the .

Reversing the screens displayed once

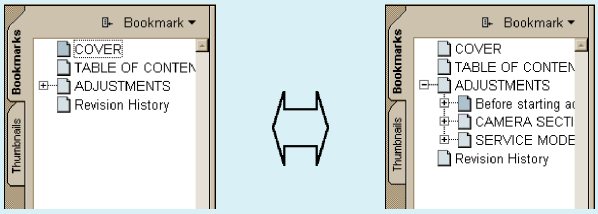
- To reverse the previous screens (operation) one by one, click the .
- To advance the reversed screens (operation) one by one, click the .

Application to the Service Manual:
This function allows you to go and back between circuit diagram and printed circuit board diagram, and accordingly it will be convenient for the voltage check.

Moving with link

1. Select either palm tool , zoom tool , text selection tool , or graphic selection tool .
2. Place the pointer in the position in a text where the link exists (such as a button on cover and the table of contents page, or blue characters on the removal flowchart page or drawing page), and the pointer will change to the forefinger form .
3. Then, click the link. (You will go to the link destination.)

Moving with bookmark:
Click an item (text) on the bookmark pallet, and you can move to the link destination. Also, clicking can display the hidden items.
(To go back to original state, click)



Zooming or rotating the screen display

"Zoom in"

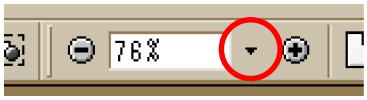
- Select the zoom tool and click the page.
- Select the zoom tool and drag a range to be zoomed in.

"Zoom out"

- Select the zoom-out tool and click the page.
- Select the zoom-out tool and drag a range to be zoomed out.

"Zoom in/out"

- Click the triangle button in the zoom control box to select the display magnification. Or, you may click or for zooming in or out.



"Rotate"

- Click rotate tool , and the page then rotates 90 degrees each.

Application to the Service Manual:
The printed circuit board diagram you see now can be changed to the same direction as the set.

Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2003.08	Official Release	—	—
1.1	2003.12	Correction-1	Correction of the schematic diagrams, printed wiring boards, waveforms, repair parts list. S.M. correction: Page 4-13, 4-15, 4-92, 5-3, 5-7, 5-10, 5-18	Yes
1.2	2004.05	Correction-2	Correction of the repair parts list. S.M. correction: Page 5-9	Yes